

THE PHOENIX PRINCIPLE
AND THE COMING DARK AGE



THE PHOENIX PRINCIPLE AND THE COMING DARK AGE

*Social catastrophes – human progress
3000 BC to AD 3000*

Marc Widdowson

Amarna Ltd
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Introduction

I was driving on the motorway north of London. It was mid-morning, one weekday in January 1999. I was making good progress. Ahead of me the traffic was strung out, going up the hill. It was a cold day with the sun embedded in high cloud. Everything had a washed out appearance. The fields were lost in a bright haze. The salt that had been scattered on the roads overnight covered every vehicle with a dirty spray. I felt that I was witnessing the last years of an era that failed some time ago. All these trucks, vans and private cars seemed to me as though they were already ghosts. They pressed on up the hill, preoccupied with their mysterious business. I foresaw that their destination was oblivion.

This book is about the catastrophe that is going to overtake today's world civilisation. Many people may regard this as a preposterous notion, and certainly a morbid one. Nevertheless, when I first set out to research past catastrophes and dark ages, I soon discovered that this was to research five thousand years of history across every inhabited continent. No theme in human experience is more pervasive or consistent. Time and time again, people have built up societies of outstanding power, wealth and morality, only to see them degenerate into weakness, poverty and dissipation. Those at the apogee of their success have invariably believed themselves to be the chosen ones, immune from the accidents that befell their predecessors, ensconced in glory for all time. Invariably they have been proved wrong. There is something going on here that commands our attention. Humility and common sense suggest we take seriously the prospect of our future downfall.

The topic is not as pessimistic as it seems. While some people live quite well, and a few live very well, the present world order has many casualties – failed countries and, within successful countries, failed people. The overturning of existing arrangements will not be a misfortune to all. A dark age is a time of great turmoil, suffering and insecurity. It is also a time of great creativity. A dark age is a melting pot when old, corrupt and exhausted institutions are finally broken down and destroyed. Something new and better suited to human needs can then be built up in their place. For the beneficiaries of the old institutions, this is certainly a painful process. For the rest, who are far more numerous, it is also a hopeful one.

The detailed characteristics of a dark age will become clear in the chapters that follow. By way of preview, it may be described as a time without government, without trade, and without any sense of community. It is a time of everyone for him or

herself. During the dark age, mere survival is the only concern. No one has the leisure for any higher activity, including keeping records. That is why a dark age is dark. Its principal feature is that we know nothing of what took place in it. The collapse that precipitates the dark age is abrupt and unexpected. The dark age itself is surprisingly brief. The recovery is slow and uneven, but eventually civilisation ascends to heights never before seen.

The book is divided into four parts. The first part reviews the history of social collapse and subsequent dark ages, in order to draw out the common themes and characteristics. The second part presents a theory of human sociality and shows how it can account for this evidence. The third part applies this theory to our present situation, and demonstrates that we fit the pattern of a civilisation in decline, our potential being rapidly used up, our progress increasingly hindered by impasses. Finally, the fourth part discusses the timing of the coming dark age, what it will be like, by what route we will arrive there, and what might come afterwards.

The purpose of this book is not really to make precise forecasts. It is rather to present a set of theoretical ideas. Everything else is more or less an exercise and a demonstration of these ideas. Above all, I have sought to pursue this investigation with rigour. It is not a complaint about declining standards. I take no moral positions. I make no criticisms or recommendations. I offer only analysis. I wish to help my readers be like anthropologists from Mars, fascinated by humans, sometimes despairing of them, often charmed, but able to judge dispassionately, their eyes unclouded by their own involvement.

The approach to a dark age is paradoxically a time when things seem to be getting better in many respects. Political authorities seem less oppressive. Economic activity is more elaborate than ever. Social attitudes become more enlightened. On the surface, everything can appear to be excellent. Behind the scenes, though, the contradictions are growing and they threaten all this wondrous achievement. It is not when you think you have a problem that you actually have one – for having identified it you can do something about it. The real worry is when things seem to be going swimmingly well. Let those who say 'preposterous!' and 'how pessimistic!' reflect on that.

MARC WIDDOWSON
Bedford, 2001

Part One

*a recurrent and
global phenomenon*

Chapter 1 - Demise of a superpower

Egypt's forgotten writing

It was the summer of 1799. French engineers were constructing military earthworks near the Egyptian coastal town of Rosetta. They belonged to Napoleon's expedition that had arrived in the country a year before. Digging in the sand, one of the soldiers struck something with his shovel. He tried to work round and underneath it, but this was no ordinary piece of rubble. He could not prise it loose. The others came to his assistance, helping him to clear away the sand from the massive object. There was no excitement, just weary annoyance at the unwelcome obstruction that only made their labours more difficult in the unfamiliar heat.

It turned out to be a slab of black basalt, about the size of a table-top but more than 25 centimetres thick. Several men were needed to lift the stone and manhandle it out of the pit. An officer's attention was drawn to the slight commotion. He came over to investigate and saw that the slab was covered in writing. Realising its significance, he ensured that it was removed intact to a safe place, then alerted his superiors. With little delay, the stone was taken to Cairo. Two specialists were sent over from Paris to make rubbings, which were then returned to France. The stone itself passed through a succession of hands and eventually arrived in the British Museum. There it remains, still in good condition.

The exciting thing about the Rosetta stone was that it contained three separate inscriptions. The first was in Egyptian hieroglyphs. These were still a mystery when the stone was discovered, despite many attempts that had been made to decipher them over the years. The second was in the equally mysterious demotic script, a highly stylised form of hieroglyphs suitable for ordinary handwriting. Crucially, however, the third inscription was in Greek; and Greek could be easily read and translated. Since all three inscriptions undoubtedly bore the same message, there opened up the possibility of deciphering the hieroglyphic and demotic texts. Within twenty years, Jean-François Champollion had produced the outlines of an Egyptian grammar. Others soon completed his work.

The story of hieroglyphic decipherment, which the Rosetta stone made possible, is one of immense scholarship and ingenuity. However, there is something else remarkable as well. This is that Egyptian civilisation could have degenerated to the point where it could no longer read its own writing. At the time that the Rosetta stone was produced, in 196 BC, Champollion's distant ancestors were mere tribal people.ⁱ They lived directly off the land and fought frequently among themselves. The Egyptian state, on the other hand, was a mighty and

venerable empire, among the most opulent and sophisticated in the world. Its fame spread far.

Somehow, these terrific advantages of Egypt seemed to have disappeared. The former tribal peoples now had the superior military organisation and equipment. They could enter the country with impunity and take it effectively unresisted. Napoleon's forces were not barbarians but the representatives of their own sophisticated civilisation. They set about surveying and interpreting the ruins that they found. By contrast, the society of the ancient Egyptians had sunk as far as could be imagined. Their former glories were resoundingly over and done with. Their precious documents and their magnificent buildings were all broken and buried in the sand, to be dug up by the French army and used as ballast. Their writing was long forgotten and with it their history and their culture. It had to await a painstaking decipherment by the descendants of backward tribal cultivators before it could be read again.

Pharaonic Egypt had been in decline before France was even born. The Rosetta stone was produced and erected in an Egypt that was already dominated by foreigners. The ruling Ptolemaic dynasty were Hellenes who had come to power after Alexander the Great conquered Egypt in 332 BC. It was on their account that one of the Rosetta inscriptions was in Greek in the first place; the hieroglyphs were already out of fashion. The Ptolemies had also been responsible for getting demotic texts transliterated into the Greek alphabet, which at least meant that the sounds and structure of the ancient Egyptian language were known to nineteenth century linguists.ⁱⁱ

Today pharaonic Egypt conjures up images of empty tombs, silent statues and museum cases full of chipped and dusty objects. It may seem only natural that it should be no more. Yet for three thousand years this civilisation was a living and enduring reality. Today its demise is familiar and unexceptional. Yet people living in the heyday of the pharaohs would have found it inconceivable that they could end up as a rather backward society, living in a land of ruins. They had acquired a phenomenal head start in the methods and benefits of civilised living. It must have seemed inevitable that their highly developed nation would forever overshadow the obscure peoples of north-western Europe. The fact that there was a massive turnaround demands some attention.

Pharaonic civilisation was, after all, the epitome of durability. It spanned the period from the beginning of the third millennium BC to the second century AD.ⁱⁱⁱ At the exodus of the Jews in 1500 BC,^{iv} a seemingly remote time before even the Ten Commandments had been handed down, the pharaonic state was at the mid-point of its existence. Then it was already three times older

than the Greek or Roman civilisations would be in their prime.^v This was an ancient society even in ancient times. The Greek historian, Herodotus, who visited Egypt in the fifth century BC, was impressed by the nation's antiquity.^{vi} When he toured the pyramids, Herodotus was looking at monuments that dated from two thousand years before his time. Their builders were almost as remote to him as he is to people today.

In describing his trip, Herodotus wrote about the astonishing number and grandeur of Egypt's monuments. This country was clearly far more accomplished than his own. Its geopolitical influence might have been on the wane, but Egypt's culture and institutions seemed set to endure.^{vii} Egypt had weathered many crises in its long history. There was nothing to suggest that it could not cope with the ups and downs it might face in future. Over the previous two centuries, it had maintained its integrity despite being subjugated by Assyrians, Persians, and Macedonians.^{viii} On each occasion it assimilated the conquerors to its own ways. Although it became progressively weakened, life carried on much as normal.

When something remains as a coherent entity for three thousand years – longer than any subsequent civilisation – one might reasonably suppose that it has found the secret of success. Its citizens would have been justified if they expected it to remain unassailable. Yet as Egypt became incorporated into the Roman empire in 30 BC, this expectation began to look decidedly shaky. Egypt was losing its long-established identity. The Romans treated Egypt much as the French and British would do, exporting its treasures and its obelisks for erection in their own public places.^{ix} They saw it, no doubt, in the same sort of light – as a venerable but dead civilisation. Two centuries later, pharaonic Egypt, for all its advantages, was entirely defunct. How could this happen? What is more, if it could happen to the early-achieving and long-lasting Egyptians, could it happen again? Could it happen to the upstart countries that now dominate the world?

The gift of the Nile

As late as 3500 BC, there was little to distinguish the Nile valley dwellers from farming people elsewhere. They had no central political authority. Such chiefs as they possessed would have been limited to resolving disputes by negotiation and persuasion. Individual families, lineages and clans largely ran their own internal affairs.^x By 3100 BC, however, the entire Nile valley had become an integrated state under the control of a single pharaoh. It was a rather rapid rise.^{xi}

While Egyptian society was undergoing this transformation, most contemporary societies remained much as they had always been. Many

societies were still living like the pre-dynastic Egyptians well into the twentieth century. That includes various groups of east African pastoralists, living further up the Nile, barely a thousand miles south of Egypt. In this light, the Egyptians' achievement surely demands respect.

The fact that it brought into a single unit some ten thousand square miles of fertile territory led the Egyptian state into complications that were not necessary for or achievable by those living more simply. It was in dealing with those complications that ancient Egypt came to appear so extraordinarily vibrant, talented and multifaceted. For a start, it encompassed a population in the region of three million or more,^{xii} and no individual could exert personal authority over so many people. From the beginning, Egypt was governed by an elaborate bureaucracy, which served as the backbone of a highly structured society.^{xiii}

Taxes had to be raised to maintain the pharaoh and the hierarchy of specialist officials. They were also needed to support workers in the state-owned mines and quarries, providing materials for the monumental architecture that was the very visible and lasting symbol of Egypt's power and prosperity. Administering all this presented problems of accounting, storage and distribution that demanded sophisticated solutions. Writing was one of the most significant.^{xiv}

Literacy allowed the Egyptians to accumulate a rich corpus of learning and transmit it from generation to generation in formal scribal schools. Much basic knowledge that is taken for granted today was first recorded in pharaonic times. While some social theorists deny that writing itself is responsible for intellectual achievement – and one should certainly not underestimate the capabilities of oral peoples – there is no doubt that the Egyptians could pursue their studies in a systematic manner which is denied to the illiterate. They produced treatises on topics such as mathematics, theology and medicine, as well as a substantial body of imaginative literature. It is unlikely that contemporary barbarians, such as those in north-western Europe, came anywhere near the same level of academic attainment.

The scale and order of pharaonic Egypt created an environment suitable for commerce. Powerful individuals established a demand for luxury items, which provided a living for artisans of various kinds. There were specialists such as sculptors, jewellers and makers of cosmetics, as well as scribes, soldiers and administrators. These people traded with each other and with the peasants in order to obtain the necessities and luxuries of life.

In some ways, the economy of the ancient Egyptians was fairly rudimentary by modern standards. For example, payments were mostly in kind rather than in currency.^{xv} Yet as research has accumulated, historians have become increasingly

appreciative of Egypt's commercial sophistication. Professional merchants certainly existed and they made profits by buying and selling. Markets, speculation and lending at interest were all taking place in Egypt from early times.^{xvi} Initially, commodities like wheat and precious metals served as a form of money,^{xvii} but towards the end of the pharaonic era coinage was being introduced.

The most famous example of the Egyptians' organising capability comprises the three giant pyramids of Giza. These were built for the pharaoh Cheops and two of his successors. This was around 2500 BC, when Egypt had already been a great civilisation for half a millennium. Another two and a half millennia of global dominance lay ahead. The pyramids were a colossal undertaking. The great pyramid of Cheops remained the tallest building in the world until the construction of the Eiffel tower.^{xviii} In other ways, it has still not been equalled.

Napoleon estimated that the great pyramid contained enough material to build a wall ten feet high around most of France.^{xix} Herodotus was told that men had worked on it in three month stints for a period of twenty years. That was after they had already spent ten years building the road along which the gigantic blocks of masonry were hauled up from the river, where they were brought by barge. Recent calculations suggest that a gang of about four thousand workers would have been necessary to do the work over that time.^{xx} This was well within Egypt's ability to supply, but it still represents some ten times the work force for a modern major road project.

The pyramids may look simple. However, the more they are studied, the more remarkable the technical expertise of their designers and builders becomes. It was clever enough just to get all the sides lined up and in proportion. The stones were not stacked up any old how, but each one was slotted into position according to a sophisticated plan. No one really knows how they were raised to the higher levels. There is also evidence of various ingenious devices for protecting against intruders. Their operation is still not wholly understood but they succeeded in keeping Egypt's conquerors out of the pyramids until the middle ages. Even now that the pyramids have been breached, some of their secrets remain to be uncovered. Quite possibly, there is some remarkable treasure still hidden in there (none was found when the great pyramid was first opened – to the enormous chagrin of the Islamic general responsible).

Apart from the engineering issues, co-ordinating the labours of four thousand construction workers was a noteworthy feat in itself. The workers were arranged into companies of some thousand individuals, these being divided into four 'watches' which were further sub-divided into groups of ten to fifty.^{xxi} As well as being

supplied with tasks, all these people had to be fed and sheltered. This would stretch the skills of project managers and logisticians to this day. During a later building programme at Thebes, the government ran short of rations after a rise in grain prices, and the labourers went on strike for their pay.^{xxii} Egyptian administrators were clearly facing and dealing with many of the same problems as their modern counterparts. Their scribal training was a business school education as much as anything else, covering the arts of management as well as the mechanics of writing.

Urban centres were not very conspicuous in Egypt until relatively late. When the pyramids were being built, Egypt had no cities to compare with those of the Sumerians in ancient Iraq.^{xxiii} This is related to the fact that in Iraq there were numerous independent states, each of which was based around its well defended citadel.^{xxiv} In Egypt, by contrast, walled towns were a feature of pre-dynastic times but disappeared once the entire valley had been pacified under a single ruler.^{xxv} Egypt's peaceful, populous countryside is therefore indicative of the degree of order that had been achieved. Nevertheless, Egypt's urban dimension still exceeded anything known to contemporary barbarians, and reflected the needs of administration and commerce. Tomb paintings and models depict streets, shops, market places, government offices, palaces and temples.^{xxvi} Towns with these features did not take shape in north-western Europe until after the arrival of the Romans. Even by the time of the Domesday survey, English towns were not as impressive as those of the pharaohs.^{xxvii}

Cities cannot be left to their own devices. Urban life, with so many strangers living on top of each other, imposes all sorts of complexities that never concern tribal people and villagers. In ancient Egypt, formal mechanisms of social control, including legal codes, were needed to keep order. Food and water had to be brought in to the city and waste matter taken out. Egyptian engineers were constructing aqueducts and drainage systems hundreds of years before the Romans. These were every bit as sophisticated as the Roman ones and were scarcely rivalled even by those of medieval Europe.^{xxviii}

Building the pyramids was therefore only the apogee of ancient Egyptian enterprise. On a more prosaic scale, the same skills constituted an integral and continuing aspect of their civilisation. Logistical and administrative problems were being solved not just in connection with the occasional one-off project but every day for three thousand years. The picture that emerges is of a society with a complex range of institutions, possessing many of the characteristic features of more recent civilisations, and addressing and overcoming many

of the same difficulties. It was doing all this well ahead of most other parts of the world.

Institutional complexity

To grasp the nature of the Egyptian achievement, it is important to be clear what it was not. In the first place, it was not simply a matter of technology. The Europeans tended to have as sophisticated technologies as the Egyptians^{xxxix} but just did less with them. The neolithic revolution, i.e. the transition from foraging to agriculture, was under way in Europe and in Egypt at approximately the same time.^{xxx} Similarly, there was no sharp distinction with respect to the innovation of metal-working. Copper technology had reached Hungary by the middle of the fourth millennium BC,^{xxxi} i.e. before the Egyptian state had even come into existence. It reached north-western Europe by 1850 BC, which was about a thousand years after it was adopted in Egypt.^{xxxii} Bronze working reached north-western Europe by 1600 BC and that was only a few hundred years behind Egypt.^{xxxiii} Neither bronze nor iron arrived in Egypt until hundreds of years after they had begun to be used in the neighbouring civilisation of Iraq.^{xxxiv} Overall, there is little evidence of a straightforward link between technological complexity and institutional complexity.

The Egyptians' characteristic monumental architecture sprang from an original base that was similar to that of Europe. The Europeans were constructing plenty of large stone burial chambers and other megaliths at an early date.^{xxxv} Britain's West Kennet long barrow, for example, has been dated to the fourth millennium BC.^{xxxvi} It resembles structures from Egypt around the same time. European burials from this period have also been found with rich assemblages of grave goods.^{xxxvii} This indicates that in ancient Europe, as in Egypt, the dead were important to the living.^{xxxviii}

The most significant European structure from the period of Egypt's ascendancy is the circle at Stonehenge. This was constructed in several stages between 2100 BC and 1600 BC. While it may be dwarfed by the pyramids, the tools and techniques that it involved were neither more nor less primitive. It looks rather the worse for wear today, but Stonehenge was originally built of properly dressed stone that had been brought from several hundred miles away. A recent project to transport such a stone by traditional methods encountered disaster when the stone slipped and fell to the bottom of the Bristol Channel. As with the pyramids, the engineering and logistical issues of building Stonehenge would have required ingenuity, application and some kind of central direction.^{xxxix}

It is not even as though the Egyptians had had an idea for complex social structures that simply did not occur to others. The Europeans actually had inchoate institutions of the requisite kind. Their

numerous earth monuments and hillforts, some going back to the fourth millennium BC, imply the existence of some kind of personal authority.^{xl} A distinction between luxury and everyday items in pottery and other artefacts points to the existence of hierarchy^{xli} and social differentiation.^{xlii}

The north-west Europeans were in touch with pharaonic Egypt, and so must have known what could be done. Egyptian faience (a kind of synthetic lapis lazuli) was being traded into Europe at least as early as 2000 to 1500 BC.^{xliii} Around 1000 BC, Egyptian hair rings were reaching Ireland and influencing styles of jewellery there.^{xliv} Even in those early times, the world system was connected, though tenuously. Unlike ancient Egypt, the European societies of this era never elaborated themselves beyond the level of petty chiefdoms.^{xlv} Social sophistication, unlike trade objects and new technologies, did not propagate by contagion. Europe remained, in modern parlance, underdeveloped.

Individually, the Europeans were not necessarily worse off because of this. The surface grandeur of the Egyptian state cannot be taken as a direct indicator of its people's actual standard of living or wellbeing.^{xlvi} The pyramid workers were not slaves, but they were not as free as the independent farmers living elsewhere. The latter had to think only about themselves and did not need to support a class of bureaucrats and nobles. When Herodotus visited Egypt in 450 BC, Cheops was remembered as a hated figure.^{xlvii} The Egyptians told him that Cheops had sent his daughter to work in a brothel. According to the story, she demanded a block of stone from each man she slept with in order to build her own pyramid (one of the smaller ones that also stand at Giza).^{xlviii} This is reminiscent of the insulting jokes that soviet citizens used to tell about their leaders. For such a story to be retailed down the centuries indicates the level of resentment towards those who lorded it over the common people.

It was as a whole that Egypt was more affluent than simple and unorganised barbarian societies.^{xlix} The complexity of its institutions, and the way they structured people's behaviour, implied the ability to do more and make more of an impact upon the world. Differences in technology or subsistence method were minimal and certainly not crucial. Egyptians and Europeans both knew how to build structures or produce works of art. They were equally accomplished as farmers. Yet in Egypt people were also arranged in multi-layered hierarchies and diversified trading networks. The power of the ruler, along with the proliferation of specialist artisans and administrators, meant that the available effort could be co-ordinated and applied more effectively to produce buildings and cultural achievements that were more numerous, more ambitious and more enduring than elsewhere.

The rulers had enormous resources at their disposal and they could project their will over great distances.

This complexity of Egypt is responsible for its leaving a substantial visible legacy to subsequent generations. Europe of the same period appears as an obscure, undifferentiated place where nothing significant happened. In 2250 BC, when Egypt had four towns that contained more than 10,000 people,ⁱ the basic unit of settlement in north-western Europe was the dispersed homestead.ⁱⁱ The relatively rare European villages contained from 30 up to about 500 people.ⁱⁱⁱ Such villages had no palaces or temples and they left little to be remembered by.

The literate Egyptians produced a direct record of their intellectual achievements. If the ancient Europeans were acquiring similar knowledge, no one can be sure because they left no account of it. Yet in Egypt even the deeds of individuals are remembered. Imhotep, chief adviser to the pharaoh Djoser, is credited with initiating the techniques of monumental architecture and improving the writing system,ⁱⁱⁱⁱ and is essentially a historical figure. By contrast, historians know nothing of the names of people living in north-western Europe at around the same time. Individuals, like Boadicea or Caractacus, only begin to emerge from the mists of history with the arrival of the literate Romans. It was not until the early church took root that a truly indigenous literate culture arose in Europe and the transformation from barbarism to civilisation began to take effect.

The fundamental nature of the advantage which pharaonic Egypt possessed over north-western Europe lay in the intricacy of people's everyday interactions. Their achievement was to create and sustain a complex set of institutions that gave a rich pattern to life. This, rather than natural resources or technical prowess, is what made Egypt seem to be a wealthy and powerful society in comparison to the many obscure societies that were contemporary with it. Civilised Egypt was distinguished from backward Europe by the vigour and elaboration of its human relationships.

This relative advantage of institutional complexity was what Egypt had clearly lost by the time that Napoleon invaded the country in 1798. The French had by then created the institutions that allowed them to equip a modern army and project it overseas. The Egyptians, on the other hand, were insufficiently co-ordinated to resist. The French had a degree of sophistication that allowed them to dig up, transport and decipher an ancient tablet. The Egyptians, however, lacked the energy and the inclination for such an undertaking. The best they could do was to leave it lying in the ground.

A profound loss of prestige

Egypt has experienced a profound loss of prestige since pharaonic times. After the Romans left, it was overrun successively by the Syrians, the Arabs and the Turks. Napoleon's short-lived invasion was ended in 1802 by the British, who subsequently occupied the country in 1882. Egypt regained independence in 1922, but did not rid itself of British troops until 1956.^{liv} It remains now a poor and underdeveloped country, whose national product is barely 3 percent of that of France.^{lv} The turnovers of many transnational corporations currently outstrip the income of the Egyptian state.

The United Nations Development Programme publishes an annual report, in which it ranks nations according to their Human Development Index. This takes into account such factors as life expectancy, educational attainment and gross domestic product. Egypt ranks somewhere round about 120 out of 175 on this score.^{lvi} If a similar table had been prepared three or four thousand years ago, Egypt would have ranked as number one. This is how far its fortunes have slipped. Even within its region Egypt stands out as being in a bad way. Of all the countries of north Africa, only Egypt is classified by the World Bank as being in the low income bracket.^{lvii}

The Egyptian adult literacy rate these days is just 53 percent. This places it below Papua New Guinea, with 74 percent. In other words, one of the earliest countries in the world to possess writing now finds itself surpassed by a region which, until recently, was occupied by simple village-level cultivators and where writing was completely unknown.^{lviii}

Economically, Egypt seems to be struggling. The government has followed the prevailing international fashion for economic liberalisation. It has an ongoing programme of restructuring the economy, and is turning its loss-making public industries over to private hands. Such reforms may improve future prospects, but there are still profound short term problems, including unemployment, inflation and deteriorating public services.^{lix} What was once the wealthiest nation in the world is a chronic recipient of overseas aid (donated by the former barbarians).^{lx}

Egypt is mostly going backwards relative to the more developed countries today. Obviously, in order to close the gap that currently exists between it and, say, the United States, Egypt must maintain a higher growth rate than the United States over a period of several decades.^{lxi} Yet in fact its growth is typically less than that of the United States.^{lxii} Even when the overall economy has been growing faster than that of the more developed countries, its people individually have been getting poorer due to a greater rate of population increase.^{lxiii}

The decline in Egypt's fortunes is very clear. Yet Egypt is still a literate urban civilisation. In

absolute terms, the country has gained greatly in wealth and capability. Contemporary Egyptians may not be building pyramids, but far more people than built the pyramids are currently working for the Egyptian state. With its power stations, motor cars, aeroplanes and international hotels, modern Egypt functions at a level far beyond anything the pharaohs could have imagined. If there is a problem it is that other regions are doing even better. Egypt's profound loss of prestige amounts to a decline in its relative position rather than a decline in its overall sophistication.

A closer look at Egypt's history reveals that it has not been in a permanently depressed state since the demise of the pharaonic state. On the contrary, Egypt enjoyed its own renaissance during the early middle ages. A series of more or less powerful Islamic states was centred on Cairo. For a while, Egypt was arguably recovering the initiative from European civilisation. In its advantaged position between the Asian, African and Mediterranean worlds, Egypt was the focus for a considerable volume of international trade and grew wealthy in consequence. Egypt has a legacy of magnificent architecture from this period, including the tenth century Al Azhar mosque and university. More than two hundred years before the first universities were established in Europe, Al Azhar was the Islamic world's prime centre of learning, where scholars studied philosophy, science, mathematics and the arts.

More recently, during the late 1970s, Egypt experienced a miniature boom as its economy grew at rates touching 10 percent. Arguably, Egypt is simply continuing the pattern of the pharaonic era, when fortunes also waxed and waned over the centuries. At some times, the ancient Egyptian empire extended far south into Ethiopia and far to the north-east into the Levant (modern Israel and Lebanon). At other times, hostile people encroached within its borders, incorporating part of Egypt's traditional territory into their own empires. Occasionally, the entire country was subject to foreign rule. There were even a few brief interregna, when the country descended into anarchy until a strong dynasty restored order and prestige. These major upsets are reflected in the traditional division of pharaonic history into old, middle and new kingdoms.

Overall, Egypt's history during the last five thousand years has been characterised by fitful changeability. It stands out because of the precocity of its early achievements. Yet on the long view, the country has been going through reversals and re-reversals from the very beginning, experiencing both greatness and failure in their turn. Its situation is and always has been fluid. Today it may be close to a historical nadir, but this could be regarded as simply a particularly deep and long-lasting retrenchment.

At the start of the twenty first century, the countries of north-western Europe and North America are at the top of the United Nations' league table of human development. Their populations enjoy the highest standards of living on earth. By and large, they take this state of affairs for granted, and they pay little attention to the question of whether or how long it can be expected to continue. Yet given Egypt's fate, it is legitimate to wonder if the world's most developed countries will always remain in the ascendant. Could it be instead that they, in their turn, will one day be languishing at the bottom of the table, their cultural achievements forgotten and buried in the ground, and the secret of their writing mislaid?

The fact that today's richest nations were the first to industrialise may seem to have given them a lasting edge. They built up capital and military capabilities that have allowed them to keep on shaping the world to their own advantage. In recent history, most latecomers have found it very difficult to catch up.^{lxiv} Yet Egypt's fate demonstrates that an initial advantage does not retain its force indefinitely. Indeed, the most cursory acquaintance with just the twentieth century makes that plain – some nations' circumstances have changed dramatically over the last one hundred years.

Ancient Egypt did not collapse in one sudden movement. Signs of the final dissolution may be discerned in the years following 650 BC when it had made its last brief play as a world power of the first rank. This was after the recapture of the southern part of the kingdom from half a century of rule by Ethiopian invaders. The country then became a second rate political force, struggling to retain its independence and prestige against neighbours who were eclipsing it. Though Egypt remained a civilised great power, it had suffered a real decline in its relative position within the international system of the day.^{lxv} The countries of north-western Europe – Britain notably – have experienced a similar relative decline in the last hundred years. Who would be confident that this is as far as it will go? As with Egypt, it could be the writing on the wall. Another half a millennium of second-rateism might end in the same kind of final, extreme humiliation.

Durability in doubt

It is generally assumed that modern civilisations will never go into as complete and devastating a decline as that experienced by ancient Egypt. Several kinds of argument are put forward to explain why this must be so. Yet they are less than convincing in their attempt to establish that something is truly different about today.

One popular theme, for example, is that today's civilisation is global. Practically instantaneous communications link every country. Supranational institutions like the United Nations

and the International Monetary Fund seem to limit the chances of any one country or region dropping out of sight. However, this point of view is illusory. Ancient Egypt was part of a world system both before and after the pharaohs' demise. It did not fall in on itself in isolation but as part of a long drawn out sequence of geopolitical events that was, at the very least, regional in its scope and significance.

Another argument is that of Arnold Toynbee in his life's work, *A Study of History*, which analysed the reasons for the growth and decay of civilisations. He observed that decline could often be attributed to an absence of the economic institutions that would permit free enterprise to flourish.^{lxvi} This seemed to apply to Egypt, which did not develop a proper money economy until quite late, when it was introduced by the country's conquerors. Professor Toynbee speculated that the prevalence of private business, which is a legacy of the industrial revolution, may mean that modern global civilisation escapes the fate of previous regional civilisations.^{lxvii}

Toynbee's conclusion can only really be defended on the assumption that Egypt declined due to this one cause. Yet that is something which no one who has studied the situation would seriously contend. Egypt's decline was a multifarious phenomenon whose proximate causes are generally uncertain but are certainly of more than one kind. There is also an implicit failure, or ultimate cause, which lies behind these proximate causes and itself demands explanation. If the ancient Egyptians really did fail because of business inefficiency, there remains the question of why. Why, after all their other achievements, did they did not develop an elaborate system of free enterprise and why did the European barbarians succeed in doing so?

There is little support for the apparently comforting hypothesis that Egypt declined because of a kind of cultural stagnation or conservatism, from which people today might be immune. Egypt cannot be written off as simply a dinosaur that failed to adapt to a changing world. During its long history, pharaonic civilisation was continuously innovating and evolving. For one thing, it lived through two technological revolutions – the arrival of the bronze and iron ages. Even in late times, Egypt remained vigorous. The Ptolemies established the Museum and great Library at Alexandria, attracting scholars of the highest calibre from the Hellenic world.^{lxviii} Far from being stagnant, Egyptian culture at that time was being enriched by sound and practical discoveries in science and engineering.

The discoveries made during Egypt's final centuries underpin all modern technical and scientific knowledge. Eratosthenes, working at Alexandria around 200 BC, provided an accurate

measure for the radius of the earth. He also expressed the view that one could reach India by going west and he constructed a map which formed the basis for Ptolemy's geography. Ptolemy's map remained current until the seventeenth century and so there is a direct link between these Alexandrian researches and Columbus's discovery of America.^{lxix} Work was also being done at Alexandria on anatomy (some of it by the dissection of live prisoners!). This produced several important discoveries including the distinction between motor and sensory nerves.^{lxx} The Alexandrian scholar, Aristarchus, developed the heliocentric theory of the solar system,^{lxxi} which eventually influenced Copernicus. Hero and his colleagues produced the first steam engine along with a large number of sophisticated mechanical devices based on siphons and compressed air, including a clock.^{lxxii}

The humanities were also advanced at Alexandria, with the preparation of a definitive edition of Homer's works and the translation of the Old Testament into Greek. Exploration was being encouraged, with a view to the trading possibilities that might be opened up, and in 100 BC Eudoxus attempted the first circumnavigation of Africa.^{lxxiii} Towards the end of the Ptolemaic period, the behaviour of the Indian Ocean monsoons came to be understood and this created the opportunity for direct sea-borne trade to India.^{lxxiv}

For vigour and range of invention, the activities at Alexandria during Egypt's late period resembled the European renaissance, which led directly to the abundance and cultural richness of the modern era. Egypt's decline cannot be attributed simply to the want of ideas or to the lack of any ability to make practical discoveries, for there was no such want or lack. Egypt declined in spite of the success of its scientists and engineers. It follows that the apparent inventiveness of twentieth century civilisation is no guarantee of continued vitality during the twenty first century.

The plain fact remains that the world's foremost superpower can degenerate to the condition of being among the world's poorest countries. This can come about even after thousands of years of successful existence. Incorporation within a world system provides no permanent insurance against failure. Nor is failure attributable to any simple factor that people may be certain they have eliminated. The land of the pharaohs was not inherently less flexible and adaptive than countries today. Its demise places at least some doubt over the durability of today's advanced civilisation. If it can be established further that Egypt's case is by no means peculiar but is representative of a general phenomenon, this doubt may be turned into something more – a realistic assessment of whether today's civilisation could also come to grief, and if so how, and when,

and perhaps even what may come afterwards. That means picking over the remains of history's many failures, seeking the underlying patterns and assessing how they all came to disaster.

Chapter 2 - What goes up...

The mighty are fallen

Some countries are today described as 'under-' or 'less developed' and belonging to the 'third world'. The implication is that, while other regions have developed themselves, these have not. With such terminology it is easy to delude oneself into supposing that these regions were always backward. Yet this is far from the case. Practically every part of the third world was high-achieving at some time in the past, and today's rich countries were then the less developed ones.

Consider the seven wonders of the world, all stupendous feats of engineering which would be considered impressive to this day. Apart from the great pyramid and fragments of the Mausoleum, they have been variously destroyed by fire, earthquakes and marauding Goths. None of the places where they were built – Egypt, Greece, Turkey, Iraq – would now count among the world's leading nations. Evidently, the land of the pharaohs is not the only one to have come down in the world over the last two or three millennia. On the contrary, its experience is commonplace.

Asia...

Iraq, for instance, is currently ranked at about 125 in terms of human development. It is impoverished and militarily weak, harried by the United States-led international community. Yet here, pre-dating even Egypt, the world's first sophisticated urban civilisation came into existence. Sumer and Akkad, two of its great ancient societies had a history going back to the earliest human settlements of the sixth millennium BC.^{lxxv} In an otherwise benighted world, people here were writing things down, paying taxes and going to school. Today these cities are just mounds of rubble set in a desiccated plain.

The area between the Tigris and Euphrates rivers, in modern Syria and Iraq, saw many different peoples reach record-breaking peaks of achievement during the first three thousand years of recorded history. These nations introduced the first legal codes and laid the foundations of mathematics and astronomy. When Aristotle visited, he was overawed by the densely packed cities and especially by Babylon, which dwarfed anything he was familiar with.^{lxxvi} The Babylonian empire, however, was conquered by Aristotle's pupil, Alexander the Great, and the region then experienced a long slump in its status. Like Egypt, it enjoyed a revival in its fortunes under the Islamic caliphs, but went into decline again from about the twelfth century.

Iran is another country that is now on the fringes of the international community but has a very distinguished past. Arguably, the Persian empire that flourished here between 600 BC and 300 BC surpassed even that of Rome.^{lxxvii} At its peak, the empire stretched from modern Pakistan to

Greece in the north and Libya in the south. It incorporated over fifty million people – half of the population of the world at that time. Iran today remains a giant country, comparable in size to the entire European Union.

The wider Islamic civilisation, to which Iran and Iraq now belong, generally occupies an inferior position in the world. None of the five permanent members of the United Nations Security Council are Muslim nations. Yet for a long period, the Christian civilisation of western Europe was under threat from Islamic peoples. In about AD 800, three quarters of the Iberian peninsula was under Arab rule and it was only fully recaptured as late as 1492. At the same time, the Ottoman Turks were establishing a powerful Islamic empire that stretched down the Levant and all across north Africa. They kept Europeans out of the overland spice trade and countered the developing Portuguese activities in the Indian Ocean. Twice they looked set to overrun Europe, only being checked at Vienna, the second time in 1682. The empire broke up after being on the losing side in the first world war.

Indochina is similarly today mostly depressed and out of luck. Yet here, in the jungles of modern Cambodia, is the temple complex of Angkor. When discovered in 1850, this was a set of stone ruins covered in lianas, the haunt of jaguars, its provenance unknown to the illiterate peasants living nearby. Once it was a flourishing centre of civilisation, the greatest of several in the region, with a population of about one million. Its finest building, Angkor Wat, is on a par with the European cathedrals, and there were apparently extensive libraries here. It was at a peak of prosperity and stability around AD 1300, but by the 1470s it had been completely abandoned.

China, encompassing about a quarter of the world's entire population, is today in a paradoxical position. It is so big that it can hardly be ignored. It has been given permanent membership of the United Nations Security Council. However, it is in many ways backward. Its citizens are poor. Its industries are inefficient. Its army is huge but ill-equipped. Nevertheless, China is the most venerable civilisation in existence, going back to around 1600 BC,^{lxxviii} well into the era when ancient Egypt and Iraq were leading the world. One high point of Chinese history was around 200 BC with the completion of the Great Wall, when China was probably more advanced than Rome. Another consisted of the few centuries after AD 1000 when the Chinese made tremendous progress in science and technology and were well ahead of Europeans. During the twelfth and thirteenth centuries, the Chinese knowledge of botany surpassed that which Europe would achieve in the fifteenth and sixteenth centuries.^{lxxix}

Another great power in the modern world by sheer weight of numbers is India. This only became free from centuries of European domination in 1947, and remains plagued by huge social problems. Yet India had its own precocious civilisations. Under the Mauryan kings of 321 BC to 185 BC, India was particularly advanced in mathematics, medicine and metallurgy.^{lxxx} Between the sixteenth and nineteenth centuries, part of India was ruled by the Mogul emperors, whose name has become a byword for those who possess enormous wealth. The Taj Mahal is just one of many magnificent buildings attesting to India's riches in this era.

Africa...

Sub-Saharan Africa, as everyone knows, is home to the world's greatest concentration of failing states. However, as most people are not so well aware, Africa outside Egypt was formerly home to well-ordered, urban and sometimes literate societies, long before the arrival of European colonisers. In AD 1400, the continent had some 36 cities with more than 20,000 inhabitants, comparable to the number in Europe. Nearly half of these were south of the equator. The problem is that civilisation in Africa was going backwards at the time that it was gathering pace in Europe. By 1800, the number of large cities had shrunk to 21.

The continent has by no means always lain open, helpless and backward, for foreigners to exploit. When Muslim armies were overrunning Spain in the early middle ages, they were being successfully kept out of the Sudan. Europeans did not initially find it easy to make inroads either. Even in the nineteenth century, the Ashanti put up strong resistance to British colonisation, and fought several wars before being overcome. Ethiopians defeated and repulsed Italy's attempted conquest in 1896 (Mussolini succeeded in 1936).^{lxxxii}

The area of the Sudan and Ethiopia is nowadays associated with famine and tribal conflict. However, there were cities here by 1500 BC and Africans from the region were sufficiently well organised to invade and hold southern Egypt for a period of some 200 years at the beginning of the first millennium BC. The city of Meroe on the mid-Nile had such fame that it was known to Herodotus.^{lxxxiii} It had its own writing and traded extensively with Egypt.

Later the Ethiopian state of Axum traded with the Roman empire and was one of the first places to adopt Christianity as its official religion, doing so in the fourth century AD. It too had its own writing, a coinage and urban centres with multi-storeyed buildings. The kings of Axum could speak Greek and their capital was endowed with stone palaces, temples and obelisks.^{lxxxiii} In the sixth century, Axumites conquered the southern part of the Arabian peninsula.^{lxxxiv} Under them, Ethiopia was a stable, civilised society at a time

when Britain was a war-torn ex-colony of the Roman empire overrun by feuding Saxon warlords – essentially the reverse of the present situation.

The Sahel, or southern edge of the Sahara, is today one of the most desperate regions of the world. Yet one or two thousand years ago, it supported large, thriving cities, including Timbuctoo. One of the seven holy cities of Islam was located here, as well as the important Islamic university of Oudane. This region, which is now chronically dependent upon international aid and relief work, was described by a native in the middle ages as rich, blessed and favoured by the Almighty. Iron was in use in this part of Africa by 500 BC, i.e. not much later than in Europe.

In western Africa, at a time when Europe was characterised by serfdom, famine, disease and petty feudal conflict, there arose a succession of large and sophisticated empires supported by rich countryside. The kingdom of Ghana flourished here between the fifth and thirteenth centuries, and inspired the modern nation (not in the same place) to adopt its glorious name.^{lxxxv} It was succeeded by the fourteenth century Mali empire and the even greater Songhai empire of the fifteenth and sixteenth centuries. These were admired throughout the Islamic world for their expanse, wealth and good order. When the Mali emperor Mansa Musa made a pilgrimage to Mecca, he brought so much gold that the value of the metal in Egypt was appreciably debased. News of his sumptuous progress reached contemporary Europe, where Mali and its lord were recorded on a map of 1375.^{lxxxvi} West African gold circulated within the medieval European economy, after being exported to Spain via the ports of north Africa. The city of Benin grew rich on this trade, reaching a peak of prosperity at the beginning of the sixteenth century. When the Portuguese arrived they found it comparable to major European cities of the time.^{lxxxvii}

On the east African coast, there arose an urban, mercantile and literate Islamic civilisation. It was prospering by the eighth and ninth centuries. Gold and ivory from the interior were shipped via Sofala in modern Mozambique to Oman and thence to India and China. An Arab visitor in AD 1331 described the east African town of Kilwa as among the most beautiful in the world. Portuguese sailors arriving in 1514 were equally impressed, remarking upon the stone and mortar buildings and the luxuriance of the surrounding countryside. Mogadishu and Mombasa were also early cities that have remained important to the present day.

The most well known site of early urbanisation in Africa is the rather mysterious ruin known as Great Zimbabwe. Although early researchers found it hard to believe that it could be the work of Africans, this was entirely a local development and was occupied from the end of the first millennium

AD. It had a population of 18,000 and there is evidence for a complex administration and social hierarchy. It seems to have come to an abrupt end, and was already in ruins by the time that the Portuguese came to hear of it in the early sixteenth century.

Much of the history of institutional complexity in Africa remains unknown and unexplored. The vast region of central Africa is particularly neglected. Nevertheless, oral traditions and the reports of early European travellers indicate that this region also had large and wealthy settlements at one time. The view of Africa as a 'dark continent' only recently 'opened up' by Europeans does a gross disservice to the true history of its many once talented peoples.

America...

America is today a continent that has been thoroughly invaded by Europeans. In the north, the indigenous peoples are totally subjugated. In central and southern parts, they tend to be peasants marginalised by a European-derived elite. Nevertheless, the new world was the scene of experiments in civilisation that to a considerable degree matched those of the old world. Numerous different societies and cultures grew up, flourished and declined in the couple of millennia before the arrival of Europeans.

The first American civilisation to come to the attention of the Europeans was that of the Aztecs in the valley of Mexico. Its ancient capital, Tenochtitlan, is today the site of Mexico City. It was founded on an island in the middle of a lake and, like Venice, was threaded by numerous waterways. This was undoubtedly a great city. It encompassed 2500 acres, comparable to the 3500 acres of Rome in its imperial heyday, and it had a population of 90,000 when that of London was only 40,000. The city was joined to the mainland by a giant causeway over a mile long. Along this fresh water was brought by an aqueduct six feet wide. The city's sanitation systems were far in advance of anything available in Europe until the end of the eighteenth century.^{lxxxviii} The Aztecs were also fearsome warriors who held sway over a large part of what is today southern Mexico, an area the size of modern Germany. Their empire yielded the Spanish conquistadors huge wealth, largely in gold, which was soon being shipped off to Europe.

The Inca civilisation of South America was another one of the great empires of all time, stretching over 350,000 square miles. The capital city of Cuzco had efficient systems of drainage and water supply.^{lxxxix} Metals were mined and worked on a considerable scale. This included not just bronze but apparently also platinum, which is beyond the capabilities of primitive furnaces and was unknown in Europe until about 1730.^{xc} The Inca royal road extended a total distance of 3250

miles, longer than the longest Roman road (from Hadrian's wall to Jerusalem) and longer than any road anywhere until the nineteenth century. Besides this there was the 24-foot wide coastal road of 2520 miles and numerous lateral roads. The city of Quito was a magnificent example of urban planning and far surpassed what the Europeans were doing at that date. The Incas excelled militarily and, between 1100 and 1500, they absorbed more than five hundred small tribes into the empire. They were also advanced in surgical techniques and performed bone transplants.^{xc1}

Europe...

Some regions in Europe were much more accomplished in the past than they seem today. The seat of the Roman empire is a clear example. Italy today remains a wealthy and significant country. However, during its heyday, the empire that arose here dominated the Mediterranean and large parts of Europe. It exceeded in reputation any state that existed or had ever existed. When the western half collapsed, having been an enormous fact of life for seven or eight hundred years, it created huge shock-waves that have reverberated down the centuries. Italy may have recovered its prosperity in renaissance and recent times, but this has more to do with the Lombards and other Germans who settled in northern Italy than with the original ethnic Romans.

Greece is another prime example. During the fifth and fourth centuries BC, it was in the vanguard of European civilisation. The Hellenistic culture represents a point of departure for European politics, philosophy, mathematics, science, literature and historiography. However, these achievements are long over and Greece is now regarded as a kind of poor relation within the European community.

Europe as a whole has also seen better days. In 1914, Europeans occupied or controlled 84 percent of the earth's surface.^{xcii} The continent is still far richer and more powerful than Africa, Asia and South America. Cultural traditions that originated in western Europe retain a considerable hold on the world. Nevertheless, Europe no longer dominates as effortlessly as it did a hundred years ago, when the rest of the world's fate could be said to be decided in London, Paris and Berlin.^{xciii}

Australia and Oceania...

In Australia and the Pacific islands, complex societies never arose. All the same, these regions seem to have been more accomplished in the past than they were when Europeans arrived. There is some evidence that agriculture was attempted in prehistoric Australia, but eventually abandoned. The heyday of the Pacific civilisation was apparently between about 1500 BC to 500 BC. By AD 500, Polynesians had abandoned the use of pottery and were no longer regularly making the

daring long-distance voyages by which they settled the ocean's far-flung islands.

The forgotten ones

It appears that not only is it possible for high-achieving societies to degenerate to third world status, but it is actually extremely common. Civilisations have sometimes gone even further than this and passed entirely into oblivion.^{xciv} In Herodotus's day, for instance, the names of Sumer and Akkad were no longer familiar to the people of ancient Iraq.^{xcv}

Until the 1880s, the Hittites were little more than a name in the Bible.^{xcvi} Their history and culture have only been reconstructed relatively recently by the efforts of archaeologists. The Hittite state emerged in Asia Minor around the beginning of the second millennium BC. It showed considerable advancement in the fields of military tactics, political institutions, legislation and the administration of justice.^{xcvii} Hittites helped destroy various civilisations in ancient Iraq and were well known to the Egyptians. By 1200 BC, however, Hittite civilisation was itself overcome and disrupted, only continuing in the empire's south-eastern provinces. Here it enjoyed a second lease of life lasting five centuries.^{xcviii} It is this relocated Hittite nation that appears in the Old Testament, with no indication that its origins lay further to the north and that it had had a whole other history before descending into Palestine. In the last decades of the eighth century BC, these remaining Hittite kingdoms became Assyrian provinces.^{xcix} By the time that Greek travellers reached the original Hittite homeland in Asia Minor, its very name had been forgotten.^c

At the other end of the Tigris-Euphrates basin, the city of Dilmun lapsed into even greater obscurity. This important entrepôt rose on the island of Bahrain around 2000 BC^{ci} and came to dominate the trade route from Iraq to India.^{cii} Around the time of Christ the city was abandoned^{ciii} and its former site was given over to nomadic camel-herders. Dilmun only became known again in the last hundred years,^{civ} after references were found in Assyrian and Babylonian inscriptions. It is just one of many other forgotten cities waiting to be discovered. They include: Sodom and Gomorrah; Tursa, the putative homeland of the Etruscans; Wasukanni, the capital of the Mitanni empire; Kussara, the seat of Anitta, first king of the Hittites; Nesa in eastern Anatolia; and Arzawa, a kingdom which flourished in western Anatolia around 1400 BC.^{cv}

Another civilisation that was all but completely forgotten was that which flourished in the Indus valley of modern Pakistan from 2500 to 1500 BC. Until an Indian archaeologist began to unearth the Indus city of Harappa in 1921,^{cvi} it had generally been believed that there were no buildings in India earlier than 500 BC.^{cvii} Yet the

Indus civilisation was as accomplished as any, with drains, bathrooms, latrines and shops all in evidence.^{cviii} Its cities were laid out in the form of a Manhattan-like grid, indicating the existence of a centralised authority capable of complex planning. Besides the two great centres of Harappa and Mohenjo-Daro there were numerous smaller settlements, and the total area of the Indus valley civilisation exceeded that of either Egypt or ancient Iraq.^{cix} The Harappan culture changed little over its thousand years of existence. For some reason the cities were eventually abandoned and buried in the mud. The region reverted to a simpler, decentralised way of life and it was another millennium at least before civilisation re-emerged in this part of India.

Central America also hosts a lost civilisation – that of the Maya, whose cities have only re-emerged one by one from the jungle.^{cx} In travelling to the Aztec heartland, the conquistadors passed right through the region where Mayan civilisation had flourished, without even suspecting its existence. Most of the facts about the Maya are still obscure.^{cxii} Their writing has only been tentatively deciphered in the last few decades and seems to give no names of kings or other details that might bring their past to life.^{cxii} What is known is that the Mayan city states spread across the Yucatan peninsula and the highlands of southern Mexico, and were connected by an extensive road network. This civilisation lasted about as long as pharaonic Egypt, but after AD 1000 the cities seem to have been abandoned.^{cxiii} By the time Europeans arrived, the descendants of these city builders were simple horticulturists living in scattered, socially undifferentiated communities. Their conquest yielded none of the rich treasure that was plundered from the Aztecs.^{cxiv}

A never-ending saga

To survey the incidence of societal decline is, it turns out, to survey some five thousand years of history across all six inhabited continents. This is a recurrent and global phenomenon.^{cxv} It is not just a question of some underprivileged nations having had happier times in the past. The world has seen repeated comings and goings. Everywhere and as far back as one can tell, there has been a continual turnover of dominant nations. This is a saga that never ends.

For example, the rise and fall of Rome is familiar to all. Yet Rome was just the most spectacular of a whole series of societies that rose and fell around the shores of the Mediterranean. Before the Romans, during the eighth and seventh centuries BC, the Etruscan people established an extensive empire on the Italian peninsula. Around 600 BC, however, they stopped expanding and came to suffer a series of defeats at the hands of the Romans. Their culture was absorbed into that of Rome and Etruscan identity was extinguished

entirely with the award of Roman citizenship in 89 BC.^{cxvi}

The Greeks were another society whose rise and fall preceded that of Rome. They had powerful provinces in the south-west of the Italian peninsula extending as far as Naples. From the fourth century BC, however, the Greek city states went into an uneven decline. They were forged into a Hellenistic empire under Philip of Macedon and his son Alexander the Great. By the beginning of the second century, this empire was in a severely weakened state and the Romans took over. Meanwhile, the city states of the classical period had themselves been preceded by the Mycenaean civilisation, which flourished between 1600 and 1200 BC and laid siege to Troy.^{cxvii} Its dimly remembered exploits were the basis of Homer's poetry.

Also ascendant in the Mediterranean long before Rome was the Minoan civilisation. This began to take shape in Crete from about 2600 BC.^{cxviii} The Minoans had luxurious palaces and storehouses for the grain collected in taxes. There was extensive trade with Egypt, Iraq and Mycenae. The Minoans suffered some sort of disaster in the mid-fourteenth century BC. Their society persisted for a few centuries in a weakened and decadent form, but finally died out. Crete was taken over by the Dorians in the sixth and fifth centuries BC and became a Greek island.

The Phoenicians were yet another people to anticipate the Romans in constructing a great Mediterranean civilisation. They originally founded a series of cities along the Levant from about 1500 BC onwards. They were highly accomplished merchants and traded in such products as purple dye and paper. The Phoenician city of Byblos was especially famous for the latter, and gave its name to the Greek word for book and English 'Bible', 'bibliography' etc. The Phoenicians established overseas bases around the rim of the Mediterranean, the most famous being the ninth century BC city of Carthage in modern-day Tunisia. After repeated attacks in its homeland, by one empire-builder or another, the focus of Phoenician civilisation shifted to the western Mediterranean, with Carthage its leading city,

In its first international treaty, the Roman republic recognised the Carthaginian trade monopoly in the western Mediterranean, in return for being allowed to pursue its own military agenda on the Italian peninsula. As Rome's power grew, the restrictions on its trade were increasingly intolerable and conflict became inevitable. The Romans defeated Carthage twice but remained fearful of its potential. In 150 BC, the pretext for a new war arose and the Roman statesman Cato urged that 'Carthage must be destroyed'. His wish was granted. Carthage was utterly razed to the

ground. There were and are no more Phoenicians. Even their language is lost.

The saga of rise and fall has continued as much after the end of the western Roman empire as it did before its beginning. The first significant new empire to take shape in Europe after Rome's demise was that of the Merovingian kings in France. These decayed after a century or so and were replaced by the Carolingians. Their greatest scion, Charlemagne, extended an empire into Germany and northern Italy. On Christmas Day AD 800 he had himself crowned Holy Roman Emperor by the pope, a choice of title that shows the prestige still possessed by the long defunct Roman empire. Charlemagne's domain was partitioned thirty years after his death, and the resulting kingdoms were themselves partitioned two or three times before the ninth century was out.

The concept of a Holy Roman Empire, based in central Europe, persisted and eventually became associated with the Habsburg family. By the early sixteenth century, the emperor Charles V ruled over territory that included Burgundy, the Netherlands, Austria, Hungary, Bohemia, Spain and southern Italy. The Habsburg empire was far and away the dominant force in contemporary Europe. For a time it seemed likely to establish a pan-European empire.^{cxix} However, the Netherlands were lost by the mid-seventeenth century and Spain's glory faded. The Austrian end also became weaker over time, and the Holy Roman Empire ceased to exist from 1807. The Habsburgs continued to rule over an Austro-Hungarian empire, but this was afflicted by chronic economic and political problems. It lagged behind in industrialisation and survived largely because each of Europe's more powerful states was reluctant to see it fall to one of the others. The Austro-Hungarian empire finally became a casualty of the first world war and the long-lived Habsburg dynasty was no more.

The rise and fall of European nations was also played out on a wider stage. Spain's power, for instance, spread around the world. In 1494, the Spanish and Portuguese partitioned the globe between them, with the pope's approval. At the time, this seemed only natural. Both countries were far ahead of the rest of Europe in their explorations. It quickly proved an empty gesture, as the French, British and Dutch joined the hunt for riches in America and the far east. Prince Henry of Portugal (the Navigator) stimulated improvements in seafaring that made the European maritime expansion possible. Yet it was not his country that benefited the most in the end. The Dutch won the battle for maritime south-east Asia and the British that for India. The Portuguese retained just a few outposts (including East Timor and thus storing up trouble to come). By 1821, the Latin American states had broken their links with Spain and

Portugal,^{cxx} and thereby largely terminated the once grand and far flung empires of these two Iberian states.

The Dutch and British may have eclipsed the Iberians, but their empires turned out to be no more permanent. The Dutch East Indies, a significant overseas property of the Netherlands for over 200 years, eventually achieved independence as Indonesia in the decades following the second world war. Before this, the Dutch found themselves being overtaken by the British. The latter's empire came to stretch right round the planet and involved the acquisition of whole continents. Britain industrialised more quickly than the rest of Europe and, with its extensive overseas trade, became the richest nation in the world. At the Battle of Waterloo in 1815, British supremacy was convincingly emphasised and the country reached its zenith in 1860-70.^{cxxi} In those days the shops of Oxford Street stunned foreign visitors. They were elaborately furnished, brilliantly lit and crammed full of goods from every corner of the earth. It was said that in England someone who had only potatoes to eat was considered starving, while in Germany someone who had potatoes was well off.^{cxxii}

Britain's heyday was as short-lived as any. In 1905, a journalist asked whether the empire that was celebrating the first centennial of the Battle of Trafalgar would survive to celebrate the second.^{cxxiii} The answer was that it would not, by a long chalk. Beginning before the second world war, and continuing apace thereafter, the British empire broke up. Today, Britain is still among the richest and most powerful members of the United Nations, but it is no longer a superpower. Once it controlled a quarter of the surface of the earth but now it is largely confined to the British Isles. Once its navy was as powerful as the next three or four navies put together.^{cxxiv} Now it is itself of the third or fourth rank. Once it had the highest per capita income in the world. Now it has slipped to somewhere below tenth place. In every relevant indicator, Britain's relative decline is sizeable and obvious.

Europe has seen nations rising and falling, one after the other, like the cars on a Ferris wheel. The same is true of everywhere else. The history of the whole region of Peru, for instance, is one of changing fortunes of various groups. The pre-Inca cultures of Chavin, Paracas and Mochicas flourished from about AD 400 to 1000. The Ica-Nazca culture produced massive figures and lines on the Nazca plain, only for the Incas to drive their coastal road right through them. An empire based upon the cities of Huari and Tiahuanoco rose to prominence over the course of three centuries, only for the cities to be abandoned by AD 1000.^{cxxv} The Chimu empire also predated the Incas, lasting between AD 1000 and 1466. From the city of

Chan-Chan it ruled over 600 miles of the coast and engaged in mass production of trade goods.

The Aztec empire was just the latest of a succession of great societies in central America, and was barely 200 years old when the Spaniard Hernan Cortés destroyed it. Various tribes were building temples and cities in the region from 1000 BC. They included the Olmecs, who had a distinctive form of art and architecture and flourished from 800 BC to AD 600 but then declined into obscurity. From about 200 BC, the city of Teotihuacan rose to prominence, its huge pyramids dwarfing everything else in Mexico. Its mastery then waned and in AD 900 it succumbed to the Chichimecs. By the time that the Aztecs rose to prominence, Teotihuacan was a forgotten ruin.

In North America, there was a similar saga of rise and fall, although the last complex societies died out shortly before Europeans arrived. The earliest civilisation in the region was brought by the Hohokam people who arrived from Mexico about 300 BC and built cities in the south-western region. The Hohokam developed sophisticated irrigation systems, and there is evidence for government and social stratification by about AD 1000. Yet the Hohokam's descendants, the Pima Indians of historical times, were simple cultivators devoid of hierarchy.

The Mogollon people emulated the Hohokam by taking up agriculture and urban living, as did the Anasazi, who underwent a similar flowering in the north. At Chaco Canyon, the Anasazi built eight towns that were connected by roads nine metres wide. These supported a total population of around 115,000. They were abandoned during the first half of the twelfth century, leaving just a 10-mile long, silt-filled and barren valley. The Mogollon culture seems to have collapsed at about the same time. By the end of the thirteenth century, the whole area was deserted and its population moved to the south and south-east, where there arose simpler communities that continued into historical times.

Another centralised society emerged at Casas Grandes in what is today northern Chihuahua, a state of Mexico. Casas Grandes had a population of 2,200 people, and seems to have been the economic and administrative centre for a region of some 50,000 square miles. It too was abandoned by the fifteenth century.

In the south-eastern part of the United States, the picture resembles that of the south-west. The Hopewell culture arose here around 100 BC, built giant earthworks, traded over a large region, and then went into decline around AD 400. Institutional complexity re-appeared by AD 700, with the emergence of the Mississippian tradition. The town of Cahokia, which was one of several urban centres, became the capital of a full-blown state. It included 2000 acres of houses and had a population

of some 30,000. This society went into terminal decline in the sixteenth century.

On the shoulders of giants

Over the last five thousand years, no society has remained permanently in the ascendant and few regions have remained permanently in a backward condition. Highly accomplished societies have gone into decline and been overtaken by others, not once, nor a few times, but over and over again. Conversely, no civilisation, not even the very first, has sprung up entirely spontaneously. They have all built on the achievements of other peoples, inheriting much from the past, and suckling at the breast of those whom they later vanquish.

Rome, for instance, took much from the Etruscans and the Greeks whom it then eclipsed. Rome was actually ruled by the Etruscan Tarquins in its earliest history, eventually expelling them and becoming a republic. Romans were always somewhat fascinated by this venerable people and the emperor Claudius wrote an Etruscan history. Similarly, the Romans acknowledged the enormous intellectual debt that they owed to the Greeks, even as they conquered and subjugated them. Some Roman commentators actually protested at the extent of borrowings from Greece.^{cxxvi} While Romans excelled in the practical arts of warfare, industry and government, they made precious few original and important additions to the Greek intellectual tradition.

What is true of Rome is true of all. For example, the Persian empire was built upon the ruins of an earlier empire of the Medes. Similarly, the Incas inherited techniques from many cultures that preceded them in South America, even though they re-told history so as to emphasise their own originality.^{cxxvii}

In exactly the same way, European civilisation owes a colossal debt to the past. It builds on its predecessors as they built on theirs. Europe's accomplishments can be traced back to many non-European peoples.^{cxxviii} The link to Rome, for instance, means a link to Greece and the Etruscans, who were in turn derivative of other civilisations in the ancient middle east. The letters with which this book is written developed from the Phoenician alphabet and hence from the writing of ancient Iraq. The numerals are Arabic. The zero is an Indian invention. Time and angle are measured in divisions introduced by the Babylonians. Huge swathes of Greek science were lifted wholesale from earlier civilisations. By the second millennium BC, the ancient Iraqis had calculated $\sqrt{2}$ correctly to one part in two million, knew how to calculate cube roots, and were aware of Pythagoras's theorem, 1200 years before Pythagoras was born.

The European way of life has subsequently been enriched by contact with many other peoples, including Arabs, south Asians and Chinese. Much

Greek knowledge, for example, did not pass to north-western Europe directly but came via the Islamic world where it was expanded and improved upon. Even something like the wheelbarrow was a Chinese invention. In the eighteenth century, prominent thinkers like Leibniz and Voltaire looked to China for guidance on moral and political issues, appealing to Chinese examples as they advocated such causes as benevolent absolutism, meritocracy, and the intensification of the economy.^{cxxix}

Europe's recent achievement is firmly rooted in the common achievement of humanity and there is no reason to credit it with unique gifts. There is no reason to suppose that it has escaped the long-running saga of the turnover of ascendant societies. Nevertheless, that certainly is the common view in the rich countries today. Few people seriously believe that some Somali general will one day be sponsoring archaeological investigations into the former achievements of the British state. Something like this may have happened to the Egyptians, but people now tell themselves that things are different. This or that reason means that the experiences of every past civilisation are no longer relevant.

The truth is that ascendant societies have always shown a remarkable amnesia about where they came from and a remarkable insouciance about the fates of those who have gone before. They readily overlook the role that other peoples have played in their success. They are easily persuaded that their accomplishments are all their own doing and involve some special factor that removes any chance of failure. The Akkadians, for example, deduced that their dominance was natural, and therefore permanent, because of their location at the centre of the world's three conjoined continents. The Greeks believed that Delphi lay at the exact centre of the world.^{cxxx} The Chinese consider theirs to be the 'middle kingdom' and uniquely civilised. In their heyday, the Venetians pointed to the fact that Venice is located at 45 degrees latitude, i.e. halfway between the equator and the pole, as the guarantee of an ever-glorious future. Sir William Herschel proved to many people's satisfaction that Britain's hegemony was inevitable given its position at the centre of the world's land mass.^{cxxxi}

Similarly, the classical Athenians reasoned that their democracy gave them a conclusive edge over all other peoples. For medieval Arabs, it was Islam that assured their rightful mastery. The mid-Victorians thought that they had discovered the secret of permanent prosperity and world harmony in the principles of classical political economy.^{cxxxii} Further, it was supposed that by being 'the first frog to jump out of the pond' Britain had achieved a position of unassailable dominance.^{cxxxiii} Darwin's ideas on natural

selection seemed to provide additional justification for this view. European thinkers argued that they had essentially won the competition for survival between human societies.^{cxxxiv} All such opinions may now be recognised as misguided fantasies, yet people continue to entertain the latest versions of them. They seldom countenance the possibility of future reversals as thoroughgoing as those which dispatched the Egyptians, Hittites and Sumerians.

A busy, busy world

One of the greatest conceits of today's leading countries is to view the world as having been fragmented into isolated regions until the point that their own sailing ships, railways and jet airliners went out to begin knitting it all together, thereby producing today's global civilisation. Nothing could be further from the truth. This is a busy, busy world and it has been such for a long, long time. Other regions of the world have never been waiting passively to be discovered and enlightened by Europe. They have been inventing, evolving, trading and exploring for as long as they have been in existence. East Asia, for example, was engaged in large-scale international commerce well before Europe was. In 1680, a director of the East India Company observed that India had ten times as much trade with other eastern nations as did any European power. Seen on the broadest temporal and spatial scales, humans everywhere have been moving forward on a common front. The view that Europe or America has brought special benefits to the world is as parochial and as tunnel-visioned as would be that claim from anywhere else.

The world has been interconnected for millennia and it has seen an extensive traffic in both ideas and material goods. Information has been getting through, even if more sparsely and slowly than today. People have always taken an interest in news from abroad. Thomas Pakenham, visiting a remote part of Ethiopia in the 1950s, was surprised to find that the locals had a good knowledge of world affairs. They acquired it from the old London newspapers wrapped around imported goods.^{cxxxv}

The ancient Iraqi and Egyptian civilisations were very much in contact. They fought each other, conducted trade and maintained diplomatic relations. The Indus civilisation had trading contacts with Iraq.^{cxxxvi} In 1600 BC, the horse-drawn chariot emerged almost simultaneously in Egypt and China,^{cxxxvii} which suggests that east and west were exchanging cultural ideas at least 3500 years ago.^{cxxxviii} Artefacts and inscriptions associated with the city of Dilmun and dating from around 3000 years ago have been found all the way from Greece to Myanmar (Burma).^{cxxxix} Long before the emergence of the Roman empire, the Phoenicians were dealing in tin from Cornwall and iron from China.^{cxl}

Many Egyptian texts reveal the sophisticated international relations of long ago.^{cxli} Hittite documents have been found in the ruined palace of the pharaoh Akhenaten who reigned around 1350 BC.^{cxlii} They include a letter from the Hittite king Suppiluliamas, congratulating Akhenaten on his succession.^{cxliii} When Akhenaten's successor, Tutankhamen, died, the young widow wrote to Suppiluliamas asking to be sent his son as a husband. Suppiluliamas complied but the Hittite prince was murdered on arrival in Egypt – apparently by a powerful courtier who subsequently married the Egyptian queen instead.^{cxliv} The Egypt of this era was also in contact with Mycenae.^{cxlv}

Even the rather remote states of Africa were connected into the global system of their day. Meroitic society, for example, was essentially a part of world Hellenistic civilisation.^{cxlvi} East Africans fought alongside Indians and Persians in Xerxes's army that marched on Greece in 480 BC. The Axumite state of Ethiopia played a significant role in international politics during the first millennium AD.^{cxlvii} An Ethiopian embassy visited Rome and Avignon in 1309, and Ethiopian delegates attended the Council of Florence in 1441. In 1428, the king of Aragon received an ambassador from the Ethiopian ruler proposing an alliance against the forces of Islam.^{cxlviii} Even aboriginal Australia was tenuously connected into the world system. There were periodic expeditions from Indonesia to the Cape York peninsula, which then provided a gateway to trade routes that criss-crossed the continent. Some Indonesian words entered the local aborigine language before Europeans 'discovered' the continent.

In America, it is generally considered that the northern, central and southern parts developed independently. Nevertheless, they all share certain cultural traits and trade surely took place between the central American civilisations and those of south-eastern and to a lesser extent south-western North America. One of the most intriguing questions concerns contacts between the old and new worlds, prior to the voyages of Columbus. It is now conventionally assumed that there was no regular contact, particularly given the lack of synchronicity in cultural developments. Yet there is increasingly strong evidence for at least sporadic contact from both east and west, including clear indications of Japanese expeditions to South America long before those of the Europeans.^{cxlix} If the connection with America has expanded the horizons of the world system, it has certainly not changed its basic nature. People have been trading and conducting international politics all the way back to the obscure beginnings of the first complex societies.

It is quite misleading to depict the current progress of east Asian and other nations as due to a

process of westernisation, i.e. the borrowing of European knowledge and techniques. The fact is that all parts of the world have been borrowing from each other since time immemorial. The Eurocentric view of history depicts Europeans as going out to the world and carrying to it commercial and industrial revolutions. Yet in most cases Europeans were only carrying forth what they had earlier received from those very regions. The three things that Francis Bacon lauded in the sixteenth century as transforming the science and technology of his day – namely paper, gunpowder and the magnetic compass – all came originally from China.^{ci} The same is true of porcelain ('china'), which played an important role in early industrialisation. The efforts of Josiah Wedgwood and others were stimulated by a desire to reproduce the imported far eastern wares that were then highly admired and sought after.

Europe lay behind other parts of the world in terms of technology until at least the eleventh century. It was a backward, barbarian region, brutal and ignorant, that did not compare at all favourably with the sophisticated, well-lit cities to the south and east. In the tenth century, when Paris was still a village, Baghdad was a metropolis of 1.5 million inhabitants.^{cii} Here Ibn Al-Haytham produced a treatise on the principles of optics and perspective that would influence renaissance artists and lens-makers five hundred years later. Muslim engineers devised all sorts of water and wind machines with valves, cranks and pistons, many of which influenced the development of European machinery. Pilgrims to the holy land, which was then under Muslim control, were amazed by its high sophistication and the luxurious standard of living available to European settlers.^{ciii}

China was scientifically and technologically far in advance of Europe during the first millennium AD and remained ahead until about 1500. China's astronomers calculated the distance to the sun, while technologists developed arch bridges, the stern-post rudder, some ingenious pumps and numerous other machines.^{ciiii} Cast iron was introduced and, at the end of the eleventh century, China's output of iron per head exceeded the figure for Europe in 1700.^{cliv} The Chinese were mining coal in considerable quantities since Roman times.^{clv} They also drilled wells to tap natural gas, while the people of Myanmar were sinking oil wells in the tenth century.^{clvi} It has been said that the Chinese of this era came close to anticipating Europe's industrial revolution by some four hundred years,^{clvii} only their society underwent retrenchment before these developments came to fruition.

Other regions have equally made considerable contributions to humanity's shared endowment. More than half the foods that the world eats today were developed by Andean farmers,^{clviii} including

the potato, tomato, chilli pepper and maize. Some of these presented significant challenges to early cultivators, exceeding those of old world plants. Africa too was responsible for many fundamental innovations, if one goes further back, covering such areas as stone working, food preparation and perhaps also the manufacture of pottery. There is nothing special about Europe, or the north Atlantic, or America. Technological inventiveness is not something that Europeans exclusively discovered in the industrial revolution. Many nations have been inventive and vigorous in the past. They continue to be so today.

Just as there is nothing special about Europe, there is also nothing special about this era. People's basic concerns and experiences have not changed very much. Today's fads and foibles are often only the fads and foibles of the day before yesterday. The health food phenomenon, for example, was alive in the first century AD, when Petronius extolled the virtues of wholemeal bread in his *Satyricon*. This was old news then, since Hippocrates had given the same message six centuries earlier.

Similarly, whereas it was once argued that ancient societies did not possess market institutions, recent scholarship has revealed an astounding amount of evidence for full-blown commerce, taxation, and even a real estate market, from thousands of years ago. The differences between capitalist and command economies that seem to have so characterised the twentieth century and contributed to its many tensions also existed in ancient times. The Marxist notion that capitalism was a new form of economic institution arising from feudalism, and that communism would be a newer form still, is simply wrong.

People are too willing to believe in differences between their ancestors and themselves. After all, information is sparse, and societies did not necessarily write down or emphasise things that they took for granted.^{clix} This may give a distorted impression of what the people of the past thought and did. In fact, they were human beings, with the same analytical skills and creativity as people today. They faced many of the same problems and they arrived at the same solutions. The Egyptian peasants who built the pyramids were not much different from those who built the Suez canal. The dwelling sizes of ordinary people have not changed much in five thousand years. The essential features of a city existed in the first city as in the latest one. There are differences between modern times and past times, but they are mostly surface differences, not differences in the inner nature of society. They are mostly quantitative rather than qualitative differences. It is very difficult to sustain an argument that the era of American and European dominance has introduced something

fundamentally new, still less that it is something which ensures their dominance will continue.

On any realistic, non-self-deceiving view, the greatest certainty about the present state of affairs is that it will not last.^{clx} The world has never stood still in the past and it will not do so in the future.

The arrangement of nations in the world today is a transient one. The rich countries will be eclipsed in the long run, and that will inevitably be by people who are today regarded as incompetent and inferior.

Chapter 3 - Imposing order

The enforcers

Pharaonic civilisation was the product of a war of conquest, in which the entire Nile valley was brought under a single ruler. This illustrates one of the major themes in creating an ascendant society, which concerns the existence of a powerful elite, capable of enforcing its will at home and abroad. Imperialists like the Romans are considered great precisely because they were willing and able to impose their dominion on a whole host of other peoples. Some civilisations, including those of Harappa^{clxi} and the Incas,^{clxii} give the appearance of out and out totalitarianism, with their subjects being highly regimented and controlled. This kind of coercion, or the habit of imposing order, can be identified as one of three characteristic dimensions of institutional complexity. (The other two will be described in following chapters.)

One historian has enumerated the factors that affect a nation's standing in the international community. They include the capability of its armed forces and the economic and technological resources on which this capability depends. Also important are the resolution and effectiveness with which foreign policy is conducted, and the ambition and discipline of the people. Finally, all these factors must be considered relative to the capabilities of other nations.^{clxiii} They boil down to one essential notion. This is that a society's status depends upon the credible threat and, if necessary, the reality of physical violence. From the earliest times, that has been the gold standard on which rulers have based their authority.

The reputations of mighty empires have always been based upon military zeal and prowess, and that is usually associated with a highly motivated elite which sets out to achieve a position of dominance. The Hittite empire, for example, was largely carved out by the great military leader Suppiluliamas around 1380 BC.^{clxiv} The early rulers of the Persian empire were similarly men of violence who did not shrink from brutal treatment of those who stood in their way. Cambyses II murdered his brother on ascending to the throne and generally behaved in the way that dictators have done to this day.^{clxv}

In south-east Asia, the durability of the local states, or mandalas, depended upon the energy and ambition of the overlord.^{clxvi} Jayavarman II, who founded Angkor, laid the foundations of its greatness through military conquest of rival mandalas.^{clxvii} The Chin dynasty of China was established by a general who had been heavily involved in the fighting of the Three Kingdoms period and who restored order to China after decades of turmoil.^{clxviii} The Etruscans achieved their early dominion over the Italian peninsula by conquering and absorbing local tribes. They had to subdue the warlike Sabines before establishing

their monarchy at Rome.^{clxix} The Aztecs rose to prominence by engaging in a series of violent and bloodthirsty conquests down the Pacific coast, as far as Guatemala.^{clxx} Captives were shown no mercy, their still-beating hearts being cut from their chests in frequent rituals of mass sacrifice.^{clxxi} The success of the Incas was similarly based upon military action. They never lost an important battle after AD 1437.^{clxxii} The British succeeded in establishing their raj in India not because of their moral superiority but because of their deadly small arms and adroit handling of horse artillery.^{clxxiii}

The attitudes that cause rulers to try and dominate other societies are the same as the attitudes that lead them to dominate within their own borders. Internal control and external assertion are two aspects of the same phenomenon. They both stem from the eagerness of some people to coerce and rule over others. Dynasties are often established by invaders, who come in a violent manner expressly to harry and subjugate a sedentary population. The Etruscans, for example, came to the Italian peninsula, probably from Asia Minor, around 1000 BC.^{clxxiv} The Western Chou, who established China's first major empire, seem to have been invaders from the barbarian west. They were less sophisticated than the Shang whom they conquered and displaced.^{clxxv} Two thousand years later, China was conquered by the barbarian horde of Genghis Khan. The resulting Mongol dynasty ruled for a hundred years.^{clxxvi} The Hittite elite appears to have come from elsewhere in order to rule what became the Hittite nation.^{clxxvii} The Aztecs were a barbarian people who arrived in the Valley of Mexico around AD 1200 to found an empire. The Inca rulers were another group of foreign invaders. They first brought the Quechua Indians under their control,^{clxxviii} and then went on to extend their dominion up and down the Pacific coast of South America.

When formerly ascendant societies go into decline, weak or poor leadership is in evidence. In ancient China, for example, the royal house of the Western Chou began to lose its authority from 934 BC and this eventually culminated in the state's collapse.^{clxxix} Impotent rulers may similarly have been a factor in the Harappan collapse,^{clxxx} while the problems of the Etruscans were probably exacerbated by domestic political instability.^{clxxxi}

The decline of the Roman empire has been linked to degeneration in governmental effectiveness.^{clxxxii} The senate seemed more concerned with personal squabbles than with running the affairs of the empire.^{clxxxiii} Edicts were given out left, right and centre but they proved useless in the absence of an executive strong enough and credible enough to enforce them.^{clxxxiv} Furthermore, there was no clear rule of succession to the empire. The principle had been established

of auctioning off the empire to the highest bidder and the emperors who came to the throne in this way proved to be mostly mediocre.^{clxxxv} Barbarian pressure on Rome also revealed the weakness of the centre. The more distant provinces became vulnerable to secession or conquest as it was made clear that the empire no longer had the vigour necessary to defend them. Bede linked the collapse of Roman rule in Britain to the shock created by Alaric's sack of Rome in AD 410, which drastically undermined the empire's aura of invincibility.^{clxxxvi}

Lack of leadership is often manifest in squabbles over who should occupy the supreme position. For example, after 2200 BC, there were quarrels among rival claimants to the Akkadian throne, and the empire fragmented as a result.^{clxxxvii} Similarly, a sequence of palace murders and intrigues led to a drastic weakening of the Hittite state. Its fortunes were only restored by the emergence of a strong king named Telipinus around 1525 BC.^{clxxxviii} One can trace the downfall of the Persian empire under the successors of Xerxes via a fatal series of murders and assassinations.^{clxxxix} Palace revolutions also became increasingly frequent prior to the collapse of China's Han dynasty, at the same time that army generals were strengthening their power bases. In AD 220, even the appearance of a central government was no longer maintainable and China collapsed into anarchy.^{cx} In 1527, the Great Inca Huayna Capac died without naming a successor. There followed a dispute for the Inca-ship between rival claimants, Huascar and Atahualpa, resulting in a five year civil war.^{cxci} The lack of an uncontested leader was a key factor in the phenomenal success of the Spanish in subduing the empire in 1532.

The weakness of the authorities in a declining society is supplemented by a reduction of military vigour. In late classical Greece, for example, citizens lost their enthusiasm for military service and armies were recruited from foreign mercenaries. Political decay in the later Roman empire was also linked with a decline in the strength of the army, which again came to consist of barbarian mercenaries. The Romans made committed legionaries when they were defending their homeland against its enemies, but military service was a less inspiring prospect when it became more a matter of keeping the peace in remote regions for people not long risen above the state of savagery. In desperate circumstances, even slaves were enlisted,^{cxcii} and they would hardly have been willing and trustworthy soldiers. It is not surprising that Rome lost its standing in the international system and became incapable of imposing its will on the Mediterranean world. The Assyrian empire also brought soldiers of subject nations into its armies, which produced a decline in the quality of the fighting force and in the long run worsened its position.^{cxci} Egypt and China

similarly came to enlist foreign mercenaries when they were in decline and called on neighbouring peoples for military help.^{cxci} The demise of the Habsburg empire is linked to problems of pay and supply that made its armies increasingly inefficient.^{cxcv} The rather more capable Germans had to step in repeatedly to bail out the Austro-Hungarian empire in its military adventures.^{cx cvi}

The hierarchs

However forceful they may be, a handful of individuals cannot directly control hundreds of thousands or millions of people. If conquest and domination are to prove lasting, complexity is inevitably required in the form of political hierarchies, whereby more powerful individuals control less powerful ones, who control less powerful ones still. Societies in which an elite rules through such coercive institutions are commonly referred to as states. The Incas implemented a particularly formal hierarchy of almost military precision, which descended down to the elementary group of ten households headed by a community leader.^{cxvii} This type of stratification may be regarded as diagnostic of an advanced society with a political elite, distinguishing it from institutionally simpler societies, where either no one is in charge or where such leaders as exist have no definite powers. Debates about the political complexity of the Anasazi, for example, revolve precisely around this question of whether some Chacoan burials are more opulent than others and give evidence of status differentiation.^{cxviii}

Elites find it easiest to establish hierarchical structures where there are large numbers of people confined in a relatively small space. Such structures are never found among scattered tribes. All the regions of African state formation, for example, seem to have had high population densities.^{cxix} Mexico, where the Mayan, Olmec and Aztec civilisations arose, was actually more populous than Europe when Columbus arrived.^{cc} The population of Harappa at the beginning of the second millennium BC was over 200,000,^{cci} an extraordinary number for a city of that era. The first state in China began to take shape around 2500 BC, at the same time as what had previously been an empty land began to support a large and busy population.^{ccii}

On the other hand, the Ibo of the west African forest have interested anthropologists because, despite having long had a high population density, they did not develop formal institutions of government until recently.^{cciii} Similarly, a full-blown bureaucratic hierarchy did not arise in the Mississippi region, despite the presence of a large number of people in a confined space.^{cciv} Nevertheless, some evidence suggests that the Ibo actually did have coercive elites in the past.^{ccv} Mississippian society may also have been more

politically complex than is thought, with Cahokia, its largest settlement, representing the capital city.^{ccvi} The correlation between a large, static and relatively dense population and the emergence of political authority is generally a reliable one, even if there is more to complexity than this single factor.

By the same token, when population density declines, elites tend to disappear, or when elites disappear, population declines. The introduction of bean cultivation has been linked to the dissolution of Mississippian society, because it allowed people to spread out. Beans are a good protein source, which meant that the Mississippians stopped being dependent on fish and could set up farms far from the river, to which they had previously been tied.^{ccvii} Similarly, after the Mayan collapse, the population in the immediate vicinity of the city of Tikal dropped to just 10 percent of its original size.^{ccviii} This was probably not due to the slaughter of the other 90 percent – there is no evidence for that – but rather due to its dispersal into the surrounding region.

It is significant that the early empires formed along river valleys, such as those of the Nile, Tigris/Euphrates, Indus and Yangtze. Here a narrow strip of fertile land provided a focal attraction confining people to a definite region. In Egypt, the fertile region is just ten to fifteen miles wide and is surrounded by near total desert.^{ccix} The Valley of Mexico represents a similar naturally circumscribed region of fertile land, which attracted successive waves of migrants. It was after the population had grown to fill the valley, around 1000 BC, that rulers appeared and the central Americans began to build their first temple cities.^{ccx} Later, the newly arrived Aztecs found the best lands already long since occupied^{ccxi} but that presented them with a sitting target. The large, industrious and prosperous population had far too much invested in the valley to consider abandonment and dispersal, even in the face of relatively heavy demands from the aggressive newcomers. Confinement of the population was also a factor in the rise of complex societies along the coastal region of Peru. The climate of South America's Pacific seaboard produces a series of narrow fertile valleys that are separated by hundreds of miles of desert.^{ccxii} As on the Nile, the people who subsisted in these valleys had nowhere to go when aggressive elites like the Incas descended to dominate them. In the eastern woodlands of North America, a religious movement called the southern cult may have served as the centripetal force that attracted people between the thirteenth and fifteenth centuries, elevating population density and promoting state formation.^{ccxiii}

The correlation between coercive elites and high population densities is reflected in the

phenomenon of urbanism. From the earliest times, political hierarchies and cities have always been found in conjunction with each other. In Sumer, the rise of advanced societies and the growth of cities amount to the same thing. The Mycenaean civilisation was based on prominent cities at Mycenae and Tyris, as well as lesser cities elsewhere.^{ccxiv} As soon as the Etruscans began their rise to prominence on the Italian peninsula, they started founding cities.^{ccxv} Whenever the Romans acquired a new territory, one of the first things they did was to begin dotting it with cities. Gaul, Spain and Italy were the chief beneficiaries.^{ccxvi} The same predilection for cities was typical of complex societies in pre-Columbian America. The city of Monte Alban was occupied from as early as 1000 BC, right up to the Spanish arrival in 1522. It appears to have been occupied by the successively ascendant societies of the Olmec, Maya and finally Zapotec.^{ccxvii} In the Valley of Mexico, where central American civilisation was focused, the city of Teotihuacan was very impressive by contemporary world standards and had some 100,000 inhabitants.^{ccxviii}

Having said this, some civilisations, such as pharaonic Egypt, had comparatively few cities and those that did exist were primarily for nobles, officials and their retinue. Similarly, the Maya left a staggering quantity of building work,^{ccxix} but only two or three of the urban complexes of the classic period are true cities with markets, houses, sewers and other signs of a significant permanent population.^{ccxx} Other centres tended to be mainly ceremonial in nature. Despite this variation, cities remain utterly characteristic of civilisation and, quite simply, they are not found at all among simpler types of society.

One of the reasons for people to gather in cities is to seek the protection of the overlord. When the ruler's authority does not extend very far into the countryside, cities tend to be well defended. The original Hittite capital, Hattusa, was a massive walled town. It included a tunnel under the defensive rampart^{ccxxi} presumably to allow secret access when the city was under siege. Walls or, more generally, defended borders indicate the extent of an autonomous political unit. When Athens was defeated by Sparta in the Peloponnesian war, it was forced to tear down the city walls, emphasising the loss of its independence.^{ccxxii} As societies mature and extend their authority over a wider area, the city walls become less important and may even disappear entirely. Conversely, when societies decline, the walls are apt to reappear. There was a tremendous amount of military construction in and around the cities of Roman Britain from about AD 350, as the political situation there deteriorated.^{ccxxiii}

Just as urbanism is associated with ascendancy, so an exodus from the cities seems to

be a characteristic consequence of a society's collapse. Immediately after the fall of the western Roman empire, there was widespread abandonment of urban life.^{ccxxiv} Once the Roman armies left Britain, the towns were soon deserted. Some may still have been occupied in a degraded fashion,^{ccxxv} but municipal functions all but ceased. The life of Saint Cuthbert tells of him visiting the ruins of Roman Carlisle in AD 685.^{ccxxvi} Even the names of many Roman towns were forgotten and they became referred to with the suffix -chester, from the Latin word for a camp. The names of Leicester and Chichester, for example, or simply Chester contain no trace of what the Roman Britons used to call them.^{ccxxvii}

Whether coercive institutions can emerge depends not just on the absolute numbers of population but also on the speed with which potential rulers can move across their dominions. The strength of the Hittite empire, for example, was founded on the light horse-drawn chariot.^{ccxxviii} Elites need to shrink the distance between settlements and thereby increase the effective concentration of the population. They need to secure up-to-date intelligence and must act swiftly to assert their authority wherever it is challenged. For this reason, states have been great builders of roads and canals.^{ccxxix} The Maya, for example, built land causeways between their cities to make trade and travel easier.^{ccxxx} The Aztec roads were particularly fine, and the conquistadors found them generally better than the ones they were used to in Europe.^{ccxxxi} The Incas carried their roads across rivers and ravines using bridges of stone and wood, suspension bridges, and cable and basket. The Inca coastal road was banked with high clay walls to keep out sand. The rulers of Angkor showed a similar concern with effective communications, and built an extensive network of canals in the area of the Mekong delta.^{ccxxxii} The Chinese also placed great emphasis on canals.

To ensure that their word goes in every part of their domain, elites have tended to establish quite sophisticated information networks, even in ancient societies. A public postal service was part of the machinery of government of the Sumero-Akkadian empire. The far-flung organisation of the postal system of the Persian empire greatly impressed Herodotus. Along the road from Susa to Ephesus, there were stations every 15 miles, between which relays carried mail at the rate of a horse's gallop.^{ccxxxiii} Private letters might be sent but were read by officials for security reasons. This communications network later helped Alexander the Great to impose his own rule on the Persians.^{ccxxxiv} A similar extensive system existed in early China.^{ccxxxv} The Roman emperor Augustus established a public courier service, with the couriers doubling as spies. The same dual use of mail carriers and spies was practised in the Abbasid

Caliphate of medieval Iraq. The Inca messenger network could carry reports over a distance greater than that from Paris to Dakar in extraordinarily quick time,^{ccxxxvi} and included the use of smoke signals, which were probably no less efficient than the semaphores of early nineteenth century France.^{ccxxxvii}

The more forceful and mobile the rulers, the larger and more sophisticated the political unit that they can control. At the low end of the scale are chiefdoms, in which a ruler and a few officials dominate a handful of villages. Authority is relatively informal and personalised, and indeed chiefdoms are not even recognised as proper states. At the other end of the scale are huge empires, encompassing multiple ethnic groups. The Alexandrian, Roman and British empires, for example, all involved the extension of rule over people with quite different customs and beliefs from those of the conquerors. The Inca empire also incorporated societies with diverse ways of life, covering three different ecological zones – mountain, coastal valley and rainforest.^{ccxxxviii} To forge a unity from multiple ethnic groups with little affinity for each other demands a very great capacity for domination, and these empires represent the most ascendant of all ascendant societies.

A highly characteristic experience of a state or empire in decline is that it should break up into smaller units. The greater the decline, the more far-reaching the break-up. Heterogeneous empires are likely to disintegrate more readily than individual nations sharing a common language and culture.^{ccxxxix} However, in some cases, not even individual cities can hold together. In parts of west Africa, weak rulers were unable to suppress conflict and maintain unity within their cities for more than a few generations.^{ccxl}

Periods of decline in the history of China are those in which the region was divided into multiple states, and periods of ascendancy are those in which it was united into a single empire. Division can be taken to be diagnostic of decline. The collapse of the Western Chou empire led to the so-called Spring-Autumn and Warring States periods, when China was fragmented.^{ccxli} During this time, from 770 to 256 BC, the imperial domain became very small,^{ccxlii} the emperor's power waned and that of the feudal lords waxed.^{ccxliii} At one point, as many as 24 feudal states were battling it out.^{ccxliv} Advanced civilisation was restored in China when the various independent states were again combined into a single empire. However, the subsequent collapse of the Han dynasty saw China again divided, this time into three kingdoms.^{ccxlv} During a later period of decline, between AD 304 and 535, fragmentation was once more the order of the day as seventeen dynasties contended with each other in the north.^{ccxlvii} The Five Dynasties period

was another period of turmoil within China, when at least ten independent states asserted themselves concurrently with the official dynasties.^{ccxlvii}

The association between societal failure and political break-up is equally evident in the complex political history of ancient Iraq and Syria. During episodes of decline, such as the periods from 2200 to 2100 BC, or from 2000 to 1800 BC, the region was fragmented, at war with itself and plundered by outsiders.^{ccxlviii} In Egypt, the kings of Dynasty VI experienced declining power and wealth, while the provincial nobility gained in power and independence.^{ccxlix} The result was that the pharaohs lost control for a while, and feudal lords waged war against each other, until strong pharaohs re-emerged with Dynasty XI and reasserted the unity of the Egyptian state. In tenth century France, as the Frankish kings lost control, power shifted first to the great counts and then even further downwards to a number of new noble families who claimed authority in more limited areas, where they built castles and recruited knights.^{cccl} The demise of the Habsburg dynasty in the first world war led to the emergence of a cluster of new lands in place of the former empire.^{cccli} There were twenty seven governments in Europe, after the war, instead of the fourteen that had existed before it.^{ccclii} Such political fragmentation can be linked to Europe's loss of power and prestige in the world as a whole.

During the periods that Hittite civilisation was in decline, the various parts of the empire reasserted their independence.^{cccliii} When imperial rule finally collapsed, the Hittite provinces in the Levant found themselves broken up into many independent petty kingdoms.^{cccliv} The Mycenaean civilisation was completely disrupted when it collapsed; there was no political unity in Greece thereafter.^{ccclv} The Etruscan decline was characterised by widespread restlessness and self-assertion among the peoples who had formerly been subordinated within its empire.^{ccclvi} In central America, when Teotihuacan lost its dominance at the end of the classic period, the Valley of Mexico saw a far-reaching fragmentation of power. Similarly, the fall of the dominant Mayan city of Mayapan around 1450 resulted in the ending of central government and its replacement with multiple independent chieftainships.^{ccclvii} In the case of Angkor, as the state declined, peripheral parts of the kingdom broke away and were attracted into the rising Thai mandala.^{ccclviii} Some African states, such as those of Ashanti and Kumasi, disappeared when peripheral cities revolted against the capital.^{ccclix}

In some cases, a prior lack of unity has been cited as a contributory factor in the rather rapid demise of some civilisations under relatively slight pressures. For instance, the failure of the Greek city states to unite into a single nation, except in the face of immediate crises, rendered them vulnerable to sustained attack by ambitious imperialists such

as Philip of Macedon.^{ccclx} The Etruscan cities were independent in the same way and this seems to have hampered them in resisting Rome's rise.^{ccclxi} The Aztecs also did not rule over a strongly integrated state, having failed to forge their conquered lands into a true political unity.^{ccclxii} It has been said that they had domination rather than dominion over the lands that they conquered.^{ccclxiii} This proved their undoing when the conquistadors arrived and found that they could easily exploit the resentments of the Aztec vassals.

The management

In a pun on Marx's observations about elites controlling the means of production, the anthropologist Jack Goody has pointed out the importance for ruling authorities of controlling the means of destruction.^{ccclxiv} Elites are extremely jealous of their monopoly over threats, coercion and restraint. Challenges to this monopoly and resistance to the very principle of their right to dominate are usually dealt with particularly harshly and seemingly out of proportion. The Hittites, for example, reserved the direst penalties for those who violated the decisions of their courts.^{ccclxv} In recent times, it is noteworthy how many African leaders spent time in jail for sedition before their constituencies gained political rights, including Hastings Banda, Jomo Kenyatta and Nelson Mandela. There can only be one authority within a given region, and colonial governments displayed little tolerance for those who contested their monopoly of force.

Ruling authorities reserve for themselves the conduct of international relations. They do not allow their subjects to deal independently with external authorities. When a nation incorporates other nations into its empire, it tends to take over their foreign policies. Hittite treaties used to take quite different forms depending on whether they were concluded with great powers, like Egypt, or with minor local rulers. In the latter case, the Hittites allowed the vassal kings to remain sovereign within their own territory and promised not to attack them, but they forbade them from maintaining a dialogue with any rival power.^{ccclxvi}

Elites also extract a living from those they dominate. At the simplest level, this is a question of mere plunder based on whatever the elites can get away with. The Aztecs made no attempt to administer the affairs of conquered peoples but simply collected tribute from them in a rather arbitrary manner. The Hittites required each vassal king to supply tribute and make an oath of allegiance to the Hittite emperor in return for little other than a promise to protect the vassal from any enemies.^{ccclxvii} The vassal king, of course, would be in no position to refuse such an arrangement. With higher levels of authority and coercive sophistication, tribute becomes regularised into a

system of formal taxation, and this requires an elaborate bureaucracy to assess and collect it.

Taxes are as old as civilisation. Sometimes, people have provided work or goods directly. Rulers of all kinds, from the pharaohs to paramount chiefs on Hawaii, have drawn on *corvée* labour to work their estates and build their tombs and palaces.^{cclxviii} In the Western Chou state, Chinese farmers had to work so many days a month on their lords' fields.^{cclxix} In pre-Columbian Peru, tax consisted partly of service on the fields of the Inca^{cclxx} or in the imperial mines,^{cclxxi} and partly of products from the peasants' own workshops or farms. The Maya also paid taxes in service or in surplus produce.^{cclxxii} Where coinage has been introduced, tax obligations tend to be converted into monetary terms, a move that is often preferred by taxpayers as much as by governments.

In monopolising force and extorting money or other goods, elites may seem to be nothing other than bullies and parasites. However, they can also claim to bring some benefits to the people that they dominate. For a start, when the rulers are strong, they are able to impose order and keep the peace. An Arab chronicler who visited the Mali empire in AD 1352-3 wrote of the merciless treatment of miscreants and the resulting fact of complete security in the country, where neither traveller nor inhabitant had anything to fear from robbers or violent thugs.^{cclxxiii}

Successful rulers tend to regularise their enforcement of order by formulating sets of explicit laws. The world's first legal code is often said to have been that of the Babylonian king Hammurabi around 1700 BC. However, this was actually based on earlier versions and the association of systems of law with the existence of political authorities is of very long standing. It should be emphasised, though, that peace and order devolve from the power of the authority who made the law rather than the law itself. The Roman republic had an advanced legal system, but people suffered during its last days because the law was being irregularly enforced. For this reason, there was little hostility towards Augustus when he made himself the first emperor, since he was a strong ruler capable of restoring the state's credibility.^{cclxxiv}

When rulers are weak and lose the monopoly of force, the result is civil unrest. In declining societies, people become more likely to assert their independence and resist the demands of the state. During Rome's civil wars of the first century BC, pirate activity that had previously been suppressed underwent a resurgence, encouraged by dissatisfied Roman vassals.^{cclxxv} Later as Roman authority collapsed in the final years of the western empire, wealthy landowners became the targets of attack.^{cclxxvi} Bands of brigands wandered the countryside largely out of control.^{cclxxvii} The Etruscans experienced internal unrest as their

society's status deteriorated.^{cclxxviii} When the son of Shih Huang Ti, builder of China's Great Wall, proved ineffectual, revolts broke out almost immediately.^{cclxxix} Disturbances also became increasingly frequent during the last stages of the Han dynasty, and there was a concerted peasant revolt in AD 184.^{cclxxx} As India's Mogul empire fell apart, anarchy spread and local usurpers grabbed power.^{cclxxxi}

The disappearance of central rule on Easter Island, in the Pacific, was associated with the rise of endemic warfare. The society became organised into two opposing groups with power having been seized from the priest-kings by a secular warrior caste. The warriors were violent and bloodthirsty and virtually enslaved those that they conquered. Even cannibalism seems to have been practised. The island's various communities became like predatory bands and much of the older, more ordered way of life vanished.^{cclxxxii} When Admiral Roggeveen arrived there on Easter Day 1722, he found a war-torn and debilitated society.^{cclxxxiii}

The general breakdown in law and order in a weakened state has ordinary people as its victims, and may well be worse than the demands of a successful elite. The mercenary armies of late classical Greece roved the country, thieving, abducting and murdering.^{cclxxxiv} At the beginning of the fifth century, St Jerome and others called Britain a province of tyrants or warlords.^{cclxxxv} The last documented contact between Britain and the authorities in Roman Gaul, after the withdrawal of the imperial armies, comprises a desperate request for aid against the lawless barbarians who were plundering the former Roman colony. The appeal failed.^{cclxxxvi} Britain became completely overrun by both local hoodlums and Anglo-Saxon invaders.^{cclxxxvii} An increase in brigandage is also associated with the deteriorating position of the Chinese imperial government throughout the seventeenth century AD.^{cclxxxviii} During France and England's hundred years war in the fourteenth century, large areas were left without effective rule. Wandering gangs preyed on the peasantry, who in Picardy were reduced to living in secret tunnels.^{cclxxxix}

On this basis, taxation can be seen as something of a *quid pro quo*. The elites provide the public good of a lawful milieu, protecting their subjects from arbitrary attack and plunder. Not only does this imply a generally more assured quality of life but it also makes possible commercial activity and the accumulation of wealth. Arguably, it is reasonable that the elites should take some share in the resulting profits. The British East India Company used to defend its stiff taxes on the ground that the payers got public order and personal security in return for their outlay.^{ccxc}

Powerful, dominant nations tend to produce peace in the international community in the same

way that strong rulers keep order at home. For example, for many centuries after 3000 BC, the evenly matched Sumerian city states were almost constantly at war, with first one then the other gaining ascendancy.^{cccxi} However, when Sargon of Akkad conquered the cities and incorporated them into his empire around 2350 BC, Sumer became a far more peaceful part of the world.^{cccxi} Similarly, while the Roman empire was at its height the Mediterranean area experienced a general absence of war for long periods. Later, during the heyday of the Ottoman empire, the eastern Mediterranean experienced a peace that lasted many centuries.^{ccciii} There was also an absence of war between the great powers of Europe from 1815 to 1914, the time when Britain was internationally dominant.^{ccciv}

Conversely, when an imperial power is in decline, there is a general increase in conflict in the international community. The last five hundred years in Europe have been characterised by a series of periods when one nation was ascendant, punctuated by episodes of heightened war as that nation weakened and was challenged.^{cccvi} One of the most devastating causes of war is when a failing superpower attempts to reassert its authority and suppress the ambitions of an emerging rival. The Greek historian Thucydides explained the Peloponnesian war in precisely these terms. He said that Sparta had to go to war with Athens in 431 BC because of the latter's growing power. The Greek peninsula was being left without a clear leader. This resulted in an unstable situation in which the altering perceptions and aspirations of the various peoples could only be resolved through open conflict.^{cccvi}

Fighting of one kind or another became endemic as the Roman empire fell into decay. Greece dissolved into petty warfare after the collapse of the Mycenaean civilisation in 1200 BC.^{cccvii} The multiple feudal states that arose in China after the collapse of the Western Chou were constantly at war with each other.^{cccviii} After the Han collapse, the three kingdoms were in a condition of permanent hostilities.^{cccix} During the later stages of the Mayan civilisation, there was a shift towards militarism as the civilisation began to falter.^{ccc} After the fall of Mayapan, there was an intensification of intertribal warfare, and this became almost continuous.^{ccci} During the late period of the Anasazi towns in south-west America, there seems to have been an increased concern with defence, presumably due to the growing frequency of attacks by one pueblo on another.^{cccii} Some buildings show evidence of violent attack before their final abandonment. There may also have been an increased incidence of warfare prior to the collapse of the Hopewell culture.^{ccciii}

Besides supplying peace and order, elites perform another useful function that might justify their bullying tactics. This is that they initiate and

manage large-scale projects. Sometimes these projects, like the Egyptian pyramids, merely serve to aggrandise the leaders. In other cases, they bring real benefits to the ordinary people. A city is more than a collection of private houses.^{ccciv} Elites take responsibility for the public buildings that serve the community in various ways. At Angkor, for example, the rulers built hospitals, guest houses and bridges,^{cccv} and they ensured that these institutions were properly staffed and maintained.

Elites often take pains to promote productive activity. They co-ordinated the construction of irrigation schemes in places like Sumer, China and the Indus valley. The Incas caused extensive terraces to be built upon the hillsides, with the aim of increasing agricultural output.^{cccvi} The rulers of Angkor ordered the construction of reservoirs to improve the reliability of wet-rice farming.^{cccvii} Their efforts may explain why Angkor proved more prosperous and durable than other mandalas. This recurrent interest in production is naturally in the rulers' enlightened self interest, since an abundant subsistence base is responsible for maintaining the viability of their own comfortable lifestyles.

Elites have also helped their societies by using taxation receipts to create a sort of communal insurance. Grain or other goods amassed during times of abundance can be dispensed during times of hardship. On many Pacific islands, the chiefs stored their tributes of yams and other food in special pits where it could last for several years, in case of agricultural disaster.^{cccviii} The Incas implemented a full blown system of social security, including old age pensions, which was ahead of anything seen in Europe for another three or four hundred years.^{cccix}

Those who choose to dominate others bring advantages to those over whom they extend their authority, sometimes accidentally but also sometimes quite knowingly and responsibly. Their very existence spawns a variety of complex institutions, from postal systems to legal codes, and their capacity to coerce their own and foreign populations is a key ingredient in the ascendancy or decline of the societies to which they belong. The following table encapsulates these measures of ascendancy.

Table 3-1: *Political factors associated with the rise and fall of complex societies.*

Ascendant	Declining
Strong leadership	Lack of leadership
Powerful military	Weak military
Unity	Fragmentation
Order	Disorder
Peace	Warfare
Dense population	Dispersed population
City dwelling	Abandonment of cities

Chapter 4 - Creating wealth

The division of labour

When European explorers first penetrated into the remote regions of highland New Guinea, they found that European goods had got there some thirty years ahead of them. These had been traded from tribe to tribe across hundreds of miles, usually for a tidy profit. Simple societies can participate in quite extensive trading networks. The Yir Yoront aborigines of Australia's Cape York used to barter spears for tool-making stone that came from quarries four hundred miles to the south. Among the foragers of palaeolithic Europe, stone axes were traded over hundreds of miles and passed through as many as ten different pairs of hands.

People everywhere have long shown considerable aptitude for commerce. However, in states and empires this activity takes place on a particularly intense scale. It represents a second major theme within the phenomenon of ascendancy. While one dimension revolves around power and coercion, the second revolves around production and commerce. With large numbers of people in a confined space, producers and merchants can reach far more potential customers. Concerted production for the market, rather than exclusive use of home made goods, is a key component of institutional complexity.

In the Nile valley, for instance, pottery began being mass-produced just before the emergence of the pharaonic state. By early dynastic times, a single workshop might be trading its vessels throughout the country.^{cccxc} In the states of pre-Columbian Peru, there was mass-production on an ambitious scale.^{cccxi} Some Mayan workshops were based on the principle of the assembly line, anticipating Henry Ford's innovation by some six centuries.^{cccxii} Even in the relatively modest states of Ethiopia, manufacturing activities were on a large scale by the first millennium BC and continued so into early Christian times.^{cccxiii}

Capitalist institutions are not a recent invention but have always been a feature of ascendant societies. In Athens around 400 BC, there was a privately owned factory employing 120 workers.^{cccxiv} Over the next hundred years, the Greeks made considerable progress in commercial and banking techniques.^{cccxv} The Romans had facilities for transferring credit through bankers and set up joint stock companies that possessed considerable staffs.^{cccxvi} The Roman statesman Seneca describes people waiting anxiously for the mail, hoping for news of their investments and financial interests in distant cities. Long before this, the Sumerians conducted joint stock enterprises, with rich patrons providing venture capital for traders and taking a share of the profits. In other cases, merchants borrowed money to fund their commercial activities.^{cccxvii} Hence the two basic

forms of business financing – loans and shares – were already present in the world's earliest cities.

The long medieval boom from the eleventh to the thirteenth centuries saw sophisticated financial and business practices emerging in Europe. Partnership and loan contracts were copied from those already in use in the advanced Islamic countries of north Africa,^{cccxviii} and large manufacturing companies were set up. Workers, meanwhile, hit on the notion of striking for higher wages.^{cccxix} The view that the medieval economy was in any way primitive, though widespread, is without foundation.^{cccxx} Some multinational companies based in Italy had hundreds of employees and branch offices in towns across Europe. These eventually crashed and disappeared in the 1340s as Europe entered a century of decline, but the Medicis and others later recreated large corporations in a different form.^{cccxxi}

The mass market permits extensive specialisation. In simpler societies, people must be mostly self-sufficient and all adults tend to make their living in the same way. In complex societies, many different types of skilled craftspeople are active. By the Egyptian first dynasty, the royal court was already employing large numbers of artists and artisans, who were capable of turning out a wide variety of luxury goods. In Sumer, specialist trades included potters, weavers, leather workers, carpenters, masons, smiths, jewellers and a host of others.^{cccxxii} Hittite documents reveal a similar range of occupations.^{cccxxiii} In its Minoan heyday, Crete supported a phenomenal diversity of activity. This included: ordinary craftsmen such as coppersmiths, carpenters, and potters; food producers such as farmers, herdsmen, shepherds, hunters and fishermen; distributing agents such as merchants, boatmen, carters and muleteers; and luxury craftsmen such as gem cutters, fresco painters, ivory carvers, gold and silversmiths, faience manufacturers, and makers of stone vases. Such an array of industries is more extensive than Crete can boast to this day.^{cccxxiv}

The rise of civilisation in central America has been linked to the enforced specialisation that was a consequence of environmental diversity. Farmers in different areas, with different soils and climates, formed a mosaic of communities, raising different crops and meeting at periodic markets.^{cccxxv} Their extensive trade networks promoted institutional complexity. In a similar way, Europe's emergence as the pre-eminent mercantile continent from the sixteenth century onward has been linked to its differentiated climate and the availability of diverse products for trade.^{cccxxvi}

In the Inca empire, markets were frequent and officials continuously travelled the road network to ensure that goods could be moved and exchanged.^{cccxxvii} In this case, commerce was

mostly local,^{cccxxviii} but many complex societies trade routinely over considerable distances. One of the reasons why civilisation first arose along great navigable rivers like the Nile, Indus, Tigris-Euphrates and Hwang Ho may be that these provided for fast, cheap transportation of goods and merchants. The interlinked lakes in the Valley of Mexico may have played a similar role in promoting social complexity there.^{cccxxix}

It is not only internal trade that takes on a particularly purposeful appearance in ascendant societies, but also the whole business of importing and exporting over thousands of miles. The Egyptian, Sumerian and Harappan peoples all had trading contacts with each other.^{cccxxx} Two and a half thousand years ago, one could get a ship to any destination in the Mediterranean within three days.^{cccxxxi} Carthaginian sailors are thought to have explored the African coast as far as Sierra Leone by 500 BC, and they may even have attempted to circumnavigate the continent. The Romans routinely visited Africa's coast as far as the Canaries in the west and Dar-es-Salaam in the east, and they were in contact with west Africa via the trans-Sahara caravan routes.^{cccxxxii} Roman merchants also established permanent trading stations in India, including one on the Bay of Bengal, and Roman products and occasionally even Roman subjects reached south-east Asia and China.^{cccxxxiii} A thousand years ago, Somalis and Kenyans were importing Chinese and Thai ceramics. A Chinese ethnographer of the ninth century accurately described the contrast between east Africa's different peoples, indicating that his country was in direct contact with the region.

During Scandinavia's great expansion between 800 and 1100, Viking traders travelled to Byzantium and Baghdad, via the Russian rivers. More than 85,000 Arabic coins from this period have been found in Sweden.^{cccxxxiv} The Maya navigated their way around the Caribbean in 80 foot canoes made from giant cedars.^{cccxxxv} Many early Spanish accounts mention the tremendous amount of sea traffic along the coast from Tabasco to Panama.^{cccxxxvi} On a larger scale, worldwide ocean trade routes became vital to European prosperity from the sixteenth century onward.^{cccxxxvii}

Sometimes, intensive trade can take place despite the absence of a strong political authority. The collapse of the Mauryan empire did not seem to inhibit commerce in India.^{cccxxxviii} For the most part, though, these two aspects of ascendancy go together. Travel and communications, essential for well developed business networks, tend to be easier under powerful governments. The primary purpose of the Roman road system may have been to permit the swift movement of the legions, but a major by-product was enormous growth in the volume of long-distance trade. The system was extremely

comprehensive. In the 1930s Roman roads were still the principal highways in northern Albania,^{cccxxxix} and some Roman bridges are still being used to this day.^{cccxl} Other powerful societies have similarly created suitable conditions for commerce. Urbanism is associated with the expansion of trade everywhere from Chaco Canyon to the African savanna.^{cccxli}

Despite this relationship, governments may differ in their overt attitude towards commerce. Merchants were highly honoured among the Maya and the Aztecs, for example.^{cccxlii} The Aztecs conquered and pacified other regions just to secure new trading opportunities.^{cccxliii} Yet other states have regarded commercial activity as potentially subversive and have sought to discourage it. The Ming emperors, for example, restricted trade, especially overseas trade, and opposed the accumulation of private capital.^{cccxliv} In late medieval Japan, merchants and bankers were denied the kind of social prominence that they were able to enjoy in Europe.^{cccxlv} Under the Ottoman empire, merchants were preyed upon in a vindictive, grasping and arbitrary fashion.^{cccxlvi} This very attitude, however, has been considered a factor behind the failure of such societies to maintain a dominant position on the global stage.

Trade and prosperity

Trade is associated with prosperity. People, societies and regions that engage in vigorous commerce present an impression of affluence and vitality. At Angkor, for example, imported items for sale included silks, ceramics, iron and copper receptacles, silver and gold.^{cccxlvii} This list clearly suggests a high standard of living – at least for some. It is typical of the bills of lading of merchants throughout history. The Egyptians of early pharaonic times obtained large amounts of timber from Syria and Lebanon, as well as jars of olive oil from Palestine and exotic items from even further afield.^{cccxlviii} They were able to live more luxuriously than people elsewhere, and it was this that made them seem ascendant by comparison.

In Britain, the centuries of Roman rule saw a massive increase in the numbers and prosperity of the population, thanks to the growth of trade.^{cccxlxi} There was a similar widespread development of material well-being in Sudan of the pharaonic period, after the government was secularised and private enterprise was allowed to develop.^{ccccli} This Meroitic civilisation grew rich by supplying the outside world with products such as ivory, slaves, rare skins, ostrich feathers, ebony and possibly gold, all drawn from a wide region of inner Africa.^{ccccli} The Axumite Ethiopians derived substantial benefit from trade in the Red Sea and were in contact with people from southern Arabia to Armenia.^{cccclii}

The east Africans showed how commerce can support a rich lifestyle even in regions of

apparently meagre potential.^{cccliii} Many societies have grown wealthy despite an almost total lack of natural resources, simply by acting as trade intermediaries. The Nabateans, for instance, built their capital city of Petra in the mountains between the Dead Sea and the Gulf of Aqaba. This desert region had very little inherent promise but was strategically situated between the Tigris-Euphrates basin and the Hellenistic cities, on whose trade the Nabateans grew rich. Petra was a city of great opulence, remarkable for the fact that its buildings were carved directly out of the rock. The city of Dilmun also thrived for two thousand years on the strength of its trade rather than the natural wealth of its immediate environment. Conversely, many peoples have been sitting on valuable resources but have realised little benefit from them until they became incorporated into substantial trade networks.

While long-distance trade brings otherwise unattainable luxuries, the widespread occupational specialisation of institutionally complex societies also implies a great increase in the number and types of goods on offer. For example, once a sizeable woodworking industry had developed in Egypt, the furnishings of wealthier houses came to include beds, chairs, stools and numerous chests and boxes. Metal bowls, dishes and other vessels were also more plentiful and more sophisticated.^{cccliv} Specialist craftsmen engaging in mass production could churn out far more than could amateur part-timers working largely for themselves.

The undertakings of societies that are in their prime give a visible demonstration of prosperity. They are impressive because of their luxury and grandiose scale. Any thought of skimping or economising seems far away. Not only do people live well and pay themselves well, but they produce art and architecture that is uncompromisingly splendid, as shown by everything from the pyramids to the Parthenon. The elaborately decorated buildings at Angkor were highly labour intensive, the stone being brought from quarries twenty miles away.^{ccclv} In pre-Columbian America, numerous cities and temples were built in grand style. The Olmecs built colossal heads^{ccclvi} and even the less developed states of North America went in for giant earthworks. Their supreme achievement was Monk's Mound at Cahokia, which took three hundred years to build and was once crowned by a massive building.^{ccclvii}

Decline, and the implied loss of institutional complexity, means a fall off in internal and international trade. This in turn implies a general impoverishment. The society's way of life becomes less ostentatious and less luxurious. In Etruria, for example, times of falling trade and times of poor quality in Etruscan architecture were virtually synonymous. Similarly, in the middle ages,

Ethiopia's trade fell drastically. The country became somewhat isolated and this was associated with a marked decline in prosperity.^{ccclviii}

In Britain, the last quarter of the fourth century, when Roman rule was crumbling, saw a marked recession in commercial activity. Markets ceased to operate and the pottery industry dwindled. Living conditions became less comfortable and less satisfactory. When the drains were blocked, they were no longer repaired and the towns stopped being pleasant places to live in.^{ccclix} The specialists who had previously performed vital occupations began to disappear. Such an unravelling of commercial activity meant that people no longer had access to what they had come to regard as the modern conveniences. As the economy lost vitality, life became less sophisticated. The life of St Tatheus describes him being entertained in a dilapidated Roman villa, whose owner was struggling to maintain the heating of his bath-house, if only at weekends.^{ccclx}

Economic decline is also associated with a widening gap between rich and poor. In late classical Greece, the majority of the freeborn were eking out an increasingly meagre living while the really wealthy were building ever more fantastically opulent private houses.^{ccclxi} In a similar way, Athens continued to be relatively prosperous during the second century BC, even while the rest of the Hellenic world was slipping into extreme penury.^{ccclxii} The same scenario was repeated in Rome as the western empire drew to its close.^{ccclxiii} Those who already had power and wealth used it to plunder and exploit the disadvantaged.^{ccclxiv} The everyday utensils of the masses became as cheap and nasty as possible, while luxury articles for the elite were more sumptuous than ever before.^{ccclxv} In the more recent history of Europe, countries like Spain and the Netherlands have experienced growing wealth differentials shortly before their commercial fortunes plummeted.^{ccclxvi} The continent as a whole experienced retrenchment during both the fourteenth and seventeenth centuries, when in each case the rich got richer and the poor got poorer as prices rose and real wages fell.^{ccclxvii}

When decline turns to collapse, trade ceases altogether so that people must subsist on what they can produce for themselves. In the heyday of Roman Britain, mass-produced pots, foodstuffs and other goods imported from the continent were a part of everyday life. However, when the legions left and civil society collapsed, this trade was disrupted by brigands and barbarian pirate fleets.^{ccclxviii} Commercial goods of pottery and glass disappeared,^{ccclxix} and people began to use home-made items of wood and leather.^{ccclxx} International commerce may have continued in some form,^{ccclxxi} but this was on a vastly smaller scale.

Inventiveness and entrepreneurship

What distinguishes the trade of institutionally complex societies from that of people like the Yir Yoront aborigines is not just the volume of trade but also the intricacy of the trading networks. When the Phoenicians turned up in Cornwall, say, looking for tin, they had to bring with them goods that the natives would find desirable. Similarly, they must have had some idea of where they would find purchasers for the tin they carried away. This was just one of the many trading connections in which the Phoenicians were involved. They conducted a Mediterranean-wide trade in diverse products, obtaining a satisfactory balance of imports and exports at each port. Such a task clearly requires imagination, hard work and a willingness to take risks. In a word, it requires entrepreneurship.

Ascendant societies are therefore characterised by the existence of professional merchants, who are talented at planning and managing commercial activity and who devote considerable effort to it. Originally, they may be just the owners of farms and workshops, trading in their own products. However, with increasing complexity, full time intermediaries are likely to emerge. Already in Sumerian times a guild of professional merchants was in existence.^{ccclxxii}

The expansion and diversification of trading networks implies considerable inventiveness, since it entails the proliferation of new products, services and techniques. The growth of the carpentry industry in early dynastic Egypt, for instance, involved improvements in the methods of joining, carving and inlay.^{ccclxxiii} At one time, these were all new ideas that had to be thought up, tried out, adopted and passed on. Europe's increased prosperity during the high middle ages was associated with a whole new array of machines. If this is not widely recognised, writes one historian of the period, it is because the work of the engineer has long been under-appreciated in the academic world. Leonardo da Vinci is still celebrated more for his painting than for his many ingenious inventions.^{ccclxxiv}

Backwardness has usually meant a lack of inventiveness and entrepreneurial ability. During the eighteenth and nineteenth centuries, Russia lagged behind the rest of Europe in industrialising. Improvements in production and commerce were severely hampered by a general lack of capital, low consumer demand, a minuscule middle class, and a government that was highly suspicious of any free activity.^{ccclxxv} These things conspired to suppress business initiative and Russia entered the twentieth century as an economic laggard, redeemed only by its sheer size.

When societies go into decline, the qualities of inventiveness and entrepreneurship tend to disappear. For example, the Greeks were once

noted for their vigour in international trade, but by the end of the classical era, their motivation seemed to have been softened by their very prosperity.^{ccclxxvi} It is also common to see resources being increasingly diverted into the bureaucratic system where they become less effective for stimulating further growth. In Rome, the overall Roman tax burden tended to increase with time,^{ccclxxvii} and the currency was debased, causing inflation, so that commerce eventually became no longer worthwhile.^{ccclxxviii} China's Yuan dynasty got into similar trouble in the mid-fourteenth century, when the public finances were in great disorder.^{ccclxxix} It collapsed not long after.

One aspect of the loss of entrepreneurship is a failure to adapt to changing circumstances in the outside world. Around AD 200, for instance, the inhabitants of Petra seem to have lost the resourcefulness that produced their original success. Their prosperity diminished as markets shifted and rival traders stepped in. The city was abandoned after Arab attacks in the sixth century. The Chacoan system may have collapsed because it failed to adapt to re-aligned trade routes whereby commerce was diverted through the new centre of Casas Grandes, which lay 400 miles to the south.^{ccclxxx} A switching of trade routes may also have been a factor in the decline of Dilmun and of Harappa.^{ccclxxxi}

It is as though ascendant countries stop being able to compete with marginal regions that then steal the commercial initiative. Rome's trade suffered as its industrial techniques spread and it was undercut by factories springing up in less developed regions.^{ccclxxxii} During its late period, the Minoan civilisation saw its market with Egypt being captured by Mycenae.^{ccclxxxiii} The Etruscan civilisation faltered when its trade grew sluggish and intermediate ports saw their business fall away.^{ccclxxxiv} The diversion of the Indian Ocean gold trade into European hands after 1500 similarly caused the demise of previously prosperous towns on the east African coast.^{ccclxxxv}

Another aspect of declining inventiveness is a failure to take up technical innovations that are then exploited by other or later societies. Historians sometimes look back on classical civilisation and ask why the ancients never really developed such technologies as the steam engine or the waterwheel. The point is that they actually knew of these things, but somehow neglected to bring them into widespread use. The skills displayed by Hero and his colleagues at Alexandria were squandered on trivial devices that opened and closed temple doors in an apparently magical manner, or made mechanical birds sing. Roman engineers discovered not only the simple horizontal type of waterwheel but also the more efficient undershot and most efficient overshot types. There was even a Roman factory at Arles in France, where 16

waterwheels were used to power machinery for milling flour on a large scale.^{ccclxxxvi} Yet the Arles factory seems to have been an exception and waterwheels never became a significant element in Roman technology. Despite knowing all about them, the Romans simply failed to exploit the potential of waterwheels for improving productivity in industry and agriculture.

Prior to the fall of Rome, there was a complete cessation of technological progress throughout the Mediterranean.^{ccclxxxvii} By the fourth century, scholarly writing in engineering, architecture and other such subjects had virtually ceased. One tract that did appear around this time suggested a thoroughgoing mechanisation of the army, recommending a whole series of reforms and mechanical contrivances, but the ideas were never taken up. Buildings, ships and war machines were still being efficiently produced but there were no significant new discoveries in any of these fields.^{ccclxxxviii} The Romans also ignored the potential of the screw press and of fossil fuels, which had been familiar from ancient times in their middle eastern provinces.

The failure to make breakthroughs that were left to later centuries has been attributed to the institution of slavery. Supposedly, with widespread cheap labour, there was little incentive to mechanise. Yet even slave-owners could have benefited from better energy sources, raising production and perhaps reducing the number of mouths to feed in the workforce. In any case, slaves were disappearing from the industrial and rural scene towards the end of the western Roman empire.^{ccclxxxix} It simply seems to be the case that people in declining societies often do not realise the potential of their inventions, perhaps because life has become comfortable enough.

This syndrome may lie behind some intriguing but isolated finds of unexpectedly sophisticated equipment from the ancient world. The Phaistos disk, for example, appears to show the use of moveable type, a key innovation behind the printing press. The Kythera mechanism seems to consist of precision-engineered cogs that were part of some kind of calculating machine. A find at Baghdad has been interpreted as an ancient electric battery, and certain pieces of ancient jewellery look as though they have been electroplated. Evidently, people long ago were making some extraordinary advances yet, because of an apparent failure within their societies, these innovations turned out to be dead ends.

The global nature of decline

The logic of an exchange means that when one partner withdraws, for whatever reason, the other also loses out. For instance, when the Yir Yoront began to obtain steel axes from missionaries, their trading partnerships with other aboriginal groups became superfluous. The fiestas during which

trading used to take place declined and all the groups belonging to the trading networks found their traditional supplies of various commodities were cut off.^{cccxc} On a much larger scale, the Wall Street crash of 1929 and the consequential reduction in US lending instigated a chain reaction that is regarded as responsible for the severe, world-wide depression of the 1930s.^{cccxi}

In the past, when one society has gone into decline, others that are connected to it through their international trade have tended to do so at the same time. The ancient world experienced two episodes of decline that were regional in scale, around 2100 BC and 1200 BC respectively. In each case, turbulence and bankruptcy struck many countries together. The concentration in time of the failures indicates that they must have been related and not due to separate processes within each country.^{cccxcii} In the second episode, problems that began in Iraq were followed by the collapse of the Minoan, Mycenaean and Hittite empires, as well as disturbances in Egypt.^{cccxciii} As a result of this calamity, whole populations migrated on a scale hitherto unknown, bringing the Dorians to Greece and the Etruscans to Italy.^{cccxciv}

Later, the decline of Etruscan civilisation was itself part of a general trend. The fall of the Tarquinian monarchy and its replacement by the Roman republic was just one of a series of incidents in which local Italic tribes expelled their Etruscan overlords.^{cccxcv} The decline in Etruscan funerary architecture during the period known as the Italic middle ages was reflected at other western Mediterranean sites including Carthage.^{cccxcvi} Then, during the final deterioration of the Etruscan civilisation, the Greek colonies of southern Italy were also stagnant and declining.^{cccxcvii}

The Roman world experienced similarly synchronised periods of public disturbances and trade recession. These may have even reached China, since it was connected to Rome via the silk roads that were in use for 2000 years up to AD 1500. Problems affecting the silk route could cause financial panics in Rome. When the western empire finally fell, the shock was far-reaching and not only in Europe. The eastern half may have survived, but it went through some very troubled times in the immediate aftermath of events in Italy.^{cccxcviii} Rome's fall may have accelerated the final disintegration of the Meroitic state in Sudan, which took place around this time.^{cccxcix}

In South America, the Huari and Tiahuanaco empires collapsed within a short time of each other, around AD 1000,^{cd} while in North America the Mimbres people experienced decline at about the same time as the Anasazi, around AD 1130 to 1150.^{cdi} The interdependence of multiple centres has also been suggested as a possible factor in the collapse of Chaco Canyon. Withdrawal of a few

members of the regional trading system may have made the position of the others ultimately untenable.^{cdii} After the Angkor collapse in south-east Asia centres at Banten Chmar, Banten Srei and Phimai were also abandoned. This was similar to the abandonment of Tikal, Quirigua and other centres of the Mayan civilisation during the ninth century.^{cdiii}

The fourteenth century, which in Europe saw the hundred years war and the black death, was a time of troubles around the world. China's Sung dynasty collapsed at this time. The Mali empire was toppled by nomadic warriors and commerce with Europe was interrupted. The Delhi sultanate fell apart, and in the Pacific the Polynesian civilisation finally stopped expanding.^{cdiv} The seventeenth century involved a similar wave of disruption world-wide. Many rulers, from the Ottoman emperor to the king of England, met violent ends. The Ming dynasty collapsed and Shah Jahan, builder of the Taj Mahal, was deposed and imprisoned. The Persian empire began to contract and a number of African states met their end. There was also persistent unrest in Europe's American colonies.^{cdv}

In principle, instances of simultaneous decline could be due to a common factor operating over a large area. It has been argued that crises affecting the whole of Europe in the mid-1600s may have been due to the common experience of a harsher climate and successive plagues,^{cdvi} and also that the ancient world's problems in 2100 BC may have been due to a regional decrease in rainfall.^{cdvii} Yet such explanations would not account for a collapse like that of the Maya, where the sites did not fall exactly simultaneously.^{cdviii} In this case, activities at the various cities ceased one by one over the period AD 800 to 900.^{cdix} This seems to have proceeded in a domino effect going eastward,^{cdx} lending support to the notion that problems in one area propagated to all its trading partners. The Mayan decline was preceded by the fall of Teotihuacan. This suggests that the region of simultaneous collapse could have been even broader, with unrest starting in the Valley of Mexico and eventually spilling over to the Mayan highlands and Yucatan.^{cdxi}

Decline therefore tends to be a worldwide phenomenon, especially when it is severe. The only thing is that the world was not so wide in ancient times. The old and new worlds were not in contact to any significant extent, and neither cultural developments nor episodes of decline were synchronised between them. In 200 BC, when Rome was beginning its magnificent career, the new world gave only a glimmer of high civilisation. Six hundred years later, as Rome crumbled and the old world fell into chaos, the new world was resplendent.^{cdxii} If past collapses were at all localised – and they were not that localised, as

already indicated – it was because communications were still relatively meagre and slow.

Money and writing

There are two social institutions that seem to be so valuable for orchestrating complex commercial activity that they are almost universally associated with states. These are money and writing.

While a money economy was already appearing under the more advanced British tribes in the century before the Roman conquest, it developed enormously after the country became fully civilised under the Romans.^{cdxiii} Virtually every society in which there has been well-developed commerce has found the need for money in one form or another. The Shang Chinese reckoned in cowrie shells.^{cdxiv} For the Maya it was cacao beans,^{cdxv} and on the middle Nile beads of glass were possibly used.^{cdxvi} The Hittites employed silver in the form of bars and rings, along with lead for smaller denominations, while they also sometimes reckoned in measures of barley.^{cdxvii} On the east African coast, copper ingots were in use during medieval times.^{cdxviii}

Some states are supposed to have got by without money. For example, it has been suggested that no money was used at Angkor,^{cdxix} among the Aztecs,^{cdxx} or in Egypt until quite late. However, it is difficult to take these assertions at face value. It is known that there were Aztec markets, for example, and at Tenochtitlan they took place in a great square in front of one of the finest buildings.^{cdxxi} A clay model of an Aztec market has been found, which suggests that they were conducted with considerable animation.^{cdxxii} It is hard to believe that markets could really have been so vigorous and important or that professional merchants – who certainly existed in Aztec society – could have functioned effectively without some kind of medium of exchange, albeit an informal one. Similarly, pharaonic Egypt may not have had a coinage as such but it had capitalist institutions. The letters of the eleventh dynasty mortuary priest, Hekanakhte, reveal a tight-fisted and irascible official who rented land, lent substantial amounts of grain, and kept surplus copper, oil, and cloth for trading purposes.^{cdxxiii}

The institution of writing is usually invented to keep track of the state's finances, though it is often turned to other purposes such as the recording of literature and academic scholarship. In medieval Europe, the business community was the one group other than the church that recognised the value of literacy. For a while, the clergy found a niche as drafters of commercial documents, but by the fourteenth and fifteenth century most men and women of the merchant class could read and write.^{cdxxiv} The three great river valley civilisations of the Nile, Tigris-Euphrates and Indus all developed their own distinctive scripts. In China,

writing first appeared with the Shang dynasty, the region's earliest civilisation, on so-called oracle bones.^{cdxxv} The Hittite state, as the first Indo-European civilisation, produced the first written Indo-European language.^{cdxxvi} In America, the Monte Alban culture had developed glyph writing by 500 BC.^{cdxxvii} The Maya produced books as well as monumental inscriptions.^{cdxxviii}

Thinking of certain African societies, one author has suggested that it is wrong to say civilisation requires writing.^{cdxxix} However, the African states in question were of an extraordinarily simple nature, and their fragility only emphasises the value of writing. The truth is that all reasonably advanced civilisations, including those of ancient Sudan and Ethiopia, have had some form of writing. The only exceptions are the South American societies of the Inca, Chimú, Mochica and Tiahuanaco,^{cdxxx} which used professional rememberers instead and an intricate system of knotted strings, called quipu. Quipu performed the same basic function as writing, i.e. to maintain records, and its use may be attributable to a lack of suitable materials for pen and paper.^{cdxxxi}

Money and writing make it straightforward for people to function in elaborate ways that would otherwise be very difficult. They should be contrasted with things like metal-working or the wheel, which have often been regarded as markers of accomplishment but which are not nearly so critical to the achievement of complexity and are thus far less relevant to the issue of ascendancy. None of the American civilisations made use of the wheel, for example, yet it is far from clear that they can therefore be condemned as in some way backward. For a start, they made toys with wheels,^{cdxxxii} indicating that they understood the concept perfectly well. Beyond this, the wheel would have served little purpose without useful draft animals, especially in the mostly mountainous regions where these civilisations took form. Yet America's indigenous mammals were generally unsuitable for the purpose. There were no horses, bovines, domestic pigs or goats. The nearest that any pre-Columbian group came to a domestic animal was the llama, which was tamed on the Peruvian coast.^{cdxxxiii}

Hence, the absence of the wheel was not a sign of intellectual deficiency but merely an indication of what was appropriate for the particular situation. Tenochtitlan was threaded with canals like Venice, and the Aztecs got around in canoes, which were far more useful to them than the wheel would have been.^{cdxxxiv} All the American civilisations showed fantastic accomplishment in many other areas. Some of the South American buildings, notably those of Cuzco, were fitted together with a precision that has never been duplicated anywhere in the world.^{cdxxxv} Their expert stonework was

raised without draft animals, fitted without cement and shaped with stone tools.^{cdxxxvi} The key point is that a city without metal or the wheel can and has functioned as well as those with, but a city without markets or administrative record-keeping would not really be recognised as a city at all. Contrary to some views,^{cdxxxvii} the advanced pre-Columbian societies of America count as true states. It is the sophistication of the institutions governing human relationships rather than knowledge of particular processes and techniques that constitutes complexity.

When societies go into decline, money and writing, these markers of institutional complexity, are abandoned or lost entirely. In Britain, the coin-using economy seems to have been in severe recession by the late fourth century. By the start of the fifth century, not only did all supply of coin from the imperial mints cease but money was so out of favour that there was no longer even any counterfeiting to make up the shortage.^{cdxxxviii}

The scripts of many ancient civilisations were unknown when first investigated by archaeologists. Hittite texts had to be deciphered just like those of the Egyptians.^{cdxxxix} The Etruscan language is only now being rediscovered through painstaking work on tomb inscriptions.^{cdxli} The writing of the Harappan civilisation remains essentially undeciphered.^{cdxlii} A similar situation prevails with the Phoenicians, despite their considerable intercourse with well-documented historical civilisations. The writing of the Meroitic state of the Middle Nile is no longer understood.^{cdxliii} The Maya forgot how to read their own hieroglyphs.^{cdxliv} After the Mycenaean collapse around 1200 BC, the art of writing disappeared from the Greek peninsula.^{cdxlv} It was only as civilisation was re-established there, from 800 BC onward, that writing began to return.

Somewhat against this trend, the inscriptions at Angkor could still be read when it was discovered.^{cdxlv} However, Angkor was not completely self-contained but was an outgrowth of a general south-east Asian civilisation, which continued to exist after Angkor fell. The important thing is that, as a given society declines, so the writing that is peculiar to it goes into abeyance, even though writing itself may continue. For instance, as Etruscan civilisation declined, so Etruscan writing died out. Being absorbed into the Roman sphere, the Etruscans took up Roman writing instead. Similarly, under the Hellenistic Ptolemies, the indigenous Egyptian hieroglyphs and Coptic script were replaced by Greek.

Education

All societies must educate their young. However, in ascendant societies schooling becomes formal and specialised, while well-educated people are virtually guaranteed secure positions with good rewards. Archaeologists have discovered an ancient

Sumerian schoolroom whose teacher's seat and rows of benches would not look out of place even today.^{cdxlv} Here, in classes of twenty to thirty, the pupils did sums and writing exercises, and carried reports home to their parents. In addition to the three Rs, the curriculum included literature, grammar, geometry and music.^{cdxlvii} If children misbehaved, they could be set 50 or 100 lines. One text from the period, over four thousand years ago, tells of a boy reluctantly leaving for school with his packed lunch in the morning, dawdling on the way, and, on account of his lateness, being threatened with the cane.

The Aztecs had a compulsory education system,^{cdxlviii} while the Chinese, from ancient times, operated a system of state examinations that were taken by applicants for positions within the imperial civil service. The Chinese system was supported by a university, and special honours were awarded by the emperor to prominent scholars.^{cdxlix} Admittedly, only the children of an intellectual elite were likely to receive a proper education in ancient civilisations, but in simpler societies there is no such opportunity at all.

Besides the schooling of children, ascendant societies are also active in research and what might be called higher inquiry. Instead of just using numbers, say, some scholars begin to explore the properties of numbers. In other words, they develop mathematics out of arithmetic. Between the fourteenth and sixteenth centuries, when Mali and Mauritania were booming on the trans-Saharan trade, their great mosques and schools enjoyed an international reputation.^{cdl} The Aztecs had linguists who studied the grammar of their language.^{cdli} The Maya produced books dealing with subjects such as mythology, astronomy and history. In AD 765, they called a congress of experts at Copan to adjust the calendar in compensation for accumulated errors.^{cdlii} Clearly, astronomy had become a veritable discipline and resolution of this kind of complex issue required discourse within an informed population, much as today.

Conversely, learning is an important area that declines as societies undergo retrenchment. The community of academic specialists shrinks or

disappears, fewer people are enrolled into the education system, the value of abstract knowledge is no longer emphasised, and the quality of knowledge is reduced. In classical Greece, *paideia*, or education, was originally recognised to be the hallmark of a civilised person. To possess *paideia* was to possess manners, culture and sophistication. As Greek civilisation waned, respect for *paideia* declined accordingly. Contemporary commentators lamented that ignorance and rudeness were no longer any cause for embarrassment. Academic standards also deteriorated in late imperial Rome. Only jurisprudence saw any real development. All other branches of knowledge, from poetry to science, were stagnant.^{cdliii} Similarly, the prestige of the Chinese civil service examination – for which scholars once spent years in preparation – declined as the Chinese state lost its authority. It tended to be abandoned during times of trouble.^{cdliiv}

Thus, the existence of specialisation and specialist knowledge is a key characteristic of ascendancy. It is part of the creation of elaborate commercial networks through inventiveness and entrepreneurship. Such networks then support elevated standards of living. These themes are encapsulated in the following table.

Table 4-1: *Economic factors associated with the rise and fall of complex societies.*

Ascendant	Declining
Highly elaborate exchange networks	Disruption of exchange networks
Mass produced goods	Home produced goods
Inventiveness and entrepreneurship	Failure to realise potential
Specialist occupations	Self-sufficiency
Institutions such as writing, money	No such institutions
Education formal and valued	Deterioration and cessation of education

Chapter 5 - Asserting a moral way

Aesthetic standards

The techniques of ancient Egyptian sculpture showed overall growth during the three thousand years of pharaonic civilisation. However, within this growth there occurred a series of up and down movements in terms of artistic merit. These pulsations were echoed in other cultural spheres, and they coincided to a remarkable degree with the fluctuations in Egypt's power and prosperity.^{cdlv} During times of disruption, cultural products displayed a marked reduction in talent and a concern with less lofty subjects.^{cdlvi} This experience illustrates a third major theme within the phenomenon of ascendancy, to be set alongside the roles played by coercion and commerce. Aesthetics and morality constitute the third dimension of institutional complexity, and vary in a consistent way with a society's changing fortunes.

Societies that are in terminal decline are regularly distinguished by the degenerate nature of their art. Students of the Maya describe their art as becoming generally shoddy and ugly as this civilisation collapsed. The carving of the classic period is recognised as beautiful, but the sculpture of the post-classic has been said to be downright bad and pitifully crude. Some of the sculptures are almost bizarre and seem to be the product of a distinctly unhealthy creative spirit.^{cdlvii} The pottery is simply dull.^{cdlviii} Ceramic art had turned into a mass product and with that had become lifeless.^{cdlix} Building construction also became devoid of beauty in late Mayan times.^{cdlx}

Exactly this pattern is reproduced at Teotihuacan in northern Mexico, where the city's final flowering was followed by degeneration in the arts.^{cdlxi} The slow decline in the city's political and economic prowess was mirrored by a decline in its pottery.^{cdlxii} The Harappan civilisation also exhibited a general degradation of art and architecture as it neared the end.^{cdlxiii} Late Minoan pottery has been described as tasteless. Decoration was based on degenerate versions of motifs from earlier centuries, these being plastered all over the vases in a haphazard fashion that was devoid of balance or subtlety.^{cdlxiv} In African states, like those of the Yoruba, statuary was at its finest during the period of greatest order and prosperity, and became cruder with time.

Roman art declined in quality during the fourth and fifth centuries, just before the collapse of the western empire. Busts of the emperors became colossal and roughly carved. The vanishing of artistic skill is apparent even to non-experts. The busts have a primitive appearance, as though the artists were unable or unwilling to render the individual traits of the persons represented. These late sculptors failed even to reproduce accurately the anatomy of the head and other parts of the human body.^{cdlxv} The decoration on the Arch of

Constantine, dating from the early fourth century, shows dumpy, imperfectly realised figures with plebeian heads and crudely carved clothing.^{cdlxvi} Rome seems to have plunged from a world of high artistry to one that was devoid of it.

While ugliness characterises the stage of terminal decline, the seeds of artistic degeneration seem to be sown much earlier, following a pattern that recurs quite consistently. When a society is still growing and developing, its art tends to deal with formal, universalist and idealist themes. However, once the society has achieved a high level of military and material security, artists turn their attention to the concerns of ordinary people and everyday life. As the Mayan classic period unfolded there was a move from religious to secular architecture.^{cdlxvii} In the ceramic arts, decoration became increasingly concerned with secular themes.^{cdlxviii} In the Egyptian old kingdom, there was a trend towards naturalism in art and a growing taste for representations of craftsmen at their tasks as opposed to the more traditional themes of gods and great persons.^{cdlxix}

Roman reliefs in Belgian Gaul and lower Germany, dating from the second century AD onwards, appear to take delight in depicting events of everyday life, such as a school, a lady's toilet and peasants paying their taxes. This marks a departure from the restricted thematic repertoire of earlier times.^{cdlxx} Greek art of the fourth century BC exhibits a growing concern with crowds, mobs and the common run of people. Pathological types, such as prostitutes, criminals, and street urchins, came to be of greater fascination than the old heroes. One critic has said that the art of this period set out to portray men rather than Man. While mortals had formerly been depicted like gods, the gods were now depicted like mortals. The idealised female figures of former times gave way to portraits of real women, in which they appeared as sexual figures or as realistically flawed.^{cdlxxi} The same trend is to be found in drama. Instead of dealing with the great political and philosophical questions, playwrights found their material in private and domestic life, in everyday experiences and the problems of the housewife.^{cdlxxii}

As well as being increasingly secular and prosaic, creative activity also becomes more flamboyant over time, something that is widely recognised by art historians as indicating the seeds of decay.^{cdlxxiii} This is accompanied by a proliferation of styles, as though artists are making personal statements rather than adhering to well rehearsed themes. During the late phases of the Mayan civilisation, pottery became more ornate and dynamic^{cdlxxiv} leading up to the final drastic reduction in quality.^{cdlxxv} The same applied to the Harappan civilisation. As the end approached, there was increased heterogeneity of pottery and other

artefact styles within an area where they had once been highly uniform.^{cdlxxvi} Similarly, pottery in the Delmarva peninsula of the eastern United States became increasingly flamboyant, until the social collapse that occurred around AD 1000 brought a return to a much simpler style.^{cdlxxvii}

It might be argued that judgements about the quality of art are suspect because they are too subjective. While a concentration on prosaic themes may be recognised unambiguously, what one person considers to be ugly or degenerate may seem to another to be refreshingly avant garde and provocative. In fact, it has been suggested that aesthetic value can be quantified mathematically as a product of complexity and order. High aesthetic value means intricate patterning and symmetry, while low aesthetic value means lack of symmetry and the limited arrangement of a few elements. Such a definition would certainly allow the late art of many societies to be identified as ugly and debased.

The need to defend aesthetic judgements can be side-stepped altogether by considering what artistic representation says about changing attitudes and capacities. Flamboyance, for example, means artists becoming less trammelled by tradition and freer to express themselves. As for art being said to be ugly and shoddy, this generally boils down to the fact that it absorbs less effort and less money. During periods when Egyptian sculpture is said to have declined in quality, it was also frequently executed in wood instead of stone. In other words, sculptors resorted to a cheaper and more easily worked material.^{cdlxxviii} What may be perceived as ugliness can be cast more objectively as skimping on the resources, both human and material, that go into creative activity. In short, the changing nature of art in declining societies involves a movement towards style diversification, secularism and cheapness.

Moral standards

Changes in a society's fortunes are reflected in the moral as well as the aesthetic sphere. Although 'moral' seems to be a subjective term, like 'aesthetic', it too can be considered objectively, provided it is understood that 'moral' means conforming to the 'mores' of a society, i.e. to its customary beliefs and practices. Behaviour is moral if it conforms to these mores and immoral if it does not. The term amoral describes individuals or societies that do not recognise a clear set of mores at all. None of this relies on assumptions about absolute ethical standards.

In this light, it can be said that ascendant societies exhibit strong morality. Aztec society, for example, was remarkably puritanical; drunkenness could be a capital offence. The Aztecs demanded moral conformity from each other. Violators of the code, as well as criminal offenders, were dealt with firmly. Similarly, Rome, in the days of the republic,

was most moral. Everyone observed the ancient pieties of the traditional religion and adopted uniform dress and manners. Those who offended against these customs were not treated lightly.

When the sense of a clear moral way pervades a society, people exhibit a high degree of civic responsibility and loyalty to their fellow citizens. There is a sense of service. During the heyday of classical Athens, youths swore an oath at the age of 18, stating 'I will hand on my fatherland, not diminished but larger and better'. Similarly, in the early days of the Roman empire, Roman citizenship was a rare privilege and something to be proud of. This generated a high level of patriotism. Citizens were very willing to serve in the legions and there was considerable public generosity.

Ascendant societies are characterised by a firm self-belief, i.e. a conviction about the rightness of their particular sets of values. This is what lies behind the supremacist fantasies of those such as the fifteenth century Venetians or nineteenth century Britons, who supposed that they had exceptional qualities ensuring their permanent ascendancy. Given their strong self-belief, ascendant societies exhibit a ready acceptance of the status quo. They celebrate and support the achievements of their leading members. They are also confident about exporting their values to the rest of the world. When new provinces were brought into the Roman empire, emphasis was placed on assimilation to Roman culture and customs. Spanish officials were encouraged to wear the toga and speak Latin. The Roman way of life was also transplanted wholesale to the formerly uncivilised regions of Gaul and Britain.

Once a society is past its peak, these habits of conformity and uncritical loyalty are gradually eroded – in a moderate way, at first, but accelerating as the state of decline becomes obvious. The late Athenians, for example, abandoned the practice of swearing oaths. They also became increasingly inclined to evade their responsibility for making contributions to the public finances. Formal compulsion had to be introduced, with the defaulters being pursued at law.^{cdlxxix} The Athenians also stopped volunteering for the city's once formidable navy and crews had to be conscripted.

Contemporary Romans despised the Greeks for their dissolution but, many centuries later, they were to go through exactly the same process. During the empire, Rome's standards became progressively relaxed and Romans were more tolerant of non-conformity. Citizens lost their pride in military service and did everything to evade it. The erosion of Rome's sense of a clear moral way coincided with the gradual abandonment of its state religion. In early times, public officials presided over regular communal ceremonies. These served

to affirm Roman values, and encouraged loyalty to Rome and its traditions. Other religions were abhorred and discriminated against. However, the Romans steadily lost respect for their traditional paganism and began going over to new faiths. Christianity, once a capital offence, was increasingly tolerated.

As it became apparent that Rome was losing its moral purpose, calls went out to renew the traditional religion. Several polemics were published in the second and third centuries AD, denouncing Christianity as a barbarian outrage and corrosive influence on the civil order.^{cdlxxx} The emperor Diocletian intensified persecution of the Christians and left a newly prosperous and vigorous empire when he abdicated in AD 305.^{cdlxxxii} His co-emperor Maximian ordered temples to be erected in every city and called for the sacred groves to be speedily restored.^{cdlxxxii} However, these moves were too late and the trend could not be reversed. Soon afterwards, Constantine became the first Christian emperor. He attempted to use Christianity as a substitute for paganism capable of binding the empire together, and in that he succeeded to some extent.^{cdlxxxiii} However, the adoption of Christianity was not total, and even the Christians disagreed among themselves on points of doctrine. The defiant espousal of Monophysite Christianity in north Africa, for example, has been interpreted as a form of deliberate defection from the declining empire.^{cdlxxxiv} In any case, the new religion signalled the end of a tradition that had encapsulated what was truly Roman about Rome. Thereafter the empire's self-confidence and mastery really began to wane.^{cdlxxxv} In 361, the emperor Julian the Apostate attempted a wholesale reconversion of the empire to paganism, but he died only two years into his project.^{cdlxxxvi} Alaric's sack of Rome in 410 – a huge blow to the Roman self-image – also led to a resurgence of paganism, in a last ditch effort to recover Rome's former confidence. However, this proved short-lived and ineffective.

The diminishing self-belief of declining societies is reflected in a defeatist mentality and even active hostility towards those who strive for the former ideals of excellence. When the world of classical Greece was past its prime, there grew up a milieu in which quality was scorned and vulgarity was encouraged. It seemed that mediocrity was preached almost as a cult. Similarly, the rulers of descendant societies attract little respect and are apt to be held up for public criticism. During the Egyptian late period, the pharaoh's fallibility came to be acknowledged and it was suggested that pharaonic disharmony with the divine will might be responsible for Egypt's misfortunes.^{cdlxxxvii} This was a significant departure from earlier times when the authority of the pharaohs had been sacrosanct and not subject to open scrutiny. In a similar way,

civil servants of the late Roman empire showed an unobtrusive but persistent defiance of their rulers.^{cdlxxxviii}

Far from promoting conformity to a moral way, opinion-makers in declining societies challenge the very idea that rigid moral standards are even appropriate. In late Greece, the Sophists taught that ideals such as truth and justice have no absolute validity but are merely relative.^{cdlxxxix} Philosophers argued for toleration, pointing out that there could be no unambiguous definition of what was virtuous. Socrates, in particular, argued that the traditional morality of his nation had no logic. He was put to death in 399 BC, after the Athenian defeat in the Peloponnesian war, on the grounds that he had been corrupting the city's youth. This was a time of moral and religious crisis, when the worship of the city's gods was being neglected.^{cdxc} The execution of Socrates has gone down in history as a crime against reason, but some might think his accusers had a point.^{cdxci} Those that came after Socrates took the relativist philosophy to extremes. Diogenes, founder of the Cynic school, argued for the complete freedom and self-sufficiency of the individual, advancing the notion that individuals owe loyalty only to themselves and not to the community. As the Athenians' belief in tradition was destroyed during the fourth century, with nothing put in its place, the fortunes of their city continued to descend. Soon enough, it fell to Philip of Macedon, and the next two thousand years were spent under the yoke of one foreigner or another.

The challenge to a people's self-belief and moral way can come from outside as well as inside, though the effect is the same, which is to destroy a previously effective society. Many indigenous peoples around the world are destitute and demoralised, their traditional way of life having failed to survive the encounter with European invaders. In Australia, when Europeans began doing missionary work, as well as distributing trade goods, and enforcing strange laws, the aboriginal world view was severely damaged. Its transmission to the next generation was profoundly disrupted, and aboriginal lifestyles now appear as dissolute and degenerate.

A similar crisis of confidence probably played a part in the conquest of the pre-Columbian civilisations of America. By itself, it is extraordinary that the mighty Aztec empire could have succumbed so easily to Cortés's force of a thousand Spanish soldiers. Certainly, the Aztecs lacked metal, the wheel, and draft animals, and they were technologically disadvantaged compared to Cortés with his horses and firearms. Yet these firearms were still relatively clumsy and required lengthy reloading. They could hardly have guaranteed success in a real war, where Cortés might have been outnumbered by as many as

twenty to one. A key element in the Aztec downfall was the unexpectedness of the Spaniards' arrival. This psychological shock undermined the Aztecs' conviction of their right to dominate and hastened their downfall.

The feat that Cortés pulled off in subduing the Aztec empire while heavily outnumbered was remarkable enough. However, it was surpassed barely a decade later when Francisco Pizarro, with just 130 foot soldiers, 40 cavalry and a single, small cannon, subdued the whole kingdom of the Incas, one of the great empires of all time. Here too blows to mood were far more important than military might. As Pizarro arrived, a five year civil war was just being concluded, which must have done some damage to the society's confidence. Furthermore, vague rumours about white people's activities in the north had probably been reaching Peru so that a sense of unease already lay over the land of the Incas.^{cdxcii} Then Pizarro tricked the Incas' new leader, Atahualpa, first capturing him after inviting him to parley, then executing him after he had supplied the ransom demanded for his release. This crisis finally unnerved the Inca empire and it passed into history. Pizarro had demonstrated that self-belief is crucial and that without it even a flourishing militarised society can collapse at the slightest of pressures.

The anthropologist Colin Turnbull has documented the most extreme rupturing of bonds of loyalty, and its drastic consequences, in his description of the Ik (pronounced 'eek'), a people among whom not even the institution of the family continued to function.^{cdxciii} Turnbull's account of the eighteen months or so that he spent with the Ik during the 1960s may rank as the most depressing chronicle in the entire history of ethnography. He describes the Ik, who lived in the mountainous north-east corner of Uganda, as being the most unfriendly, uncharitable, inhospitable and generally mean people as one could expect to meet. The simple problem was that the Ik were starving. They had been banned from their former hunting ground in Kidepo National Park and encouraged to become farmers, but the uncertain rainfall of the region and the Ik's general lack of aptitude ensured that their fields provided a worthwhile return at best one year in three. The result was extreme selfishness, with the Ik foraging alone and keeping for themselves whatever food they might find. Parents disowned their children, who learned food collecting techniques from each other and from the baboons. When Turnbull tried to intervene in a small way by provisioning some of the older and weaker Ik, he was condemned for wasting food on people who would die anyway. Among the Ik, there simply was not room for such luxuries as family, sentiment and love. One young girl, Adupa, seemed not to have learnt the basic principles of survival and would bring food to her parents. They, however, only

laughed at her when she asked them for food in return. In the end, when her incessant demands became intolerable, they shut her in a compound to starve to death. After a few days, they threw her body out into the bush like so much garbage. When Turnbull tried to help one man who had been fatally injured in a fight by giving him a cup of hot sweet tea, the man's sister stole the mug from his hands and ran away laughing with her trophy. On another wretched occasion, Turnbull saw the young son of a man who had just died trying to tear the lip plug from him as others fought over the body for the man's meagre possessions. Turnbull suggests that Ik society had degenerated to the point that its members had lost any sense of a moral way and with it any kind of commitment to their fellows. Arguably, they no longer had a society at all.

From religion to cultism

Declining societies can present an apparent paradox. On the one hand, religion seems to be dying out. Secular themes take over in art, for example, and the traditional pieties are neglected. On the other hand, interest in religion appears to be on the increase, with new faiths proliferating and their adherents showing intense commitment. In the late Roman empire, the traditional gods were abandoned, but people flocked instead to alternative belief systems offered not only by Christians but also by Jews, Gnostics, Stoics, Neo-Platonists, Neo-Pythagoreans, Manichaeans, Mithraists, and even Hindu mystics.^{cdxciv} There was also renewed interest in magic, and the wearing of amulets, for example, became widespread.^{cdxcv} Similarly, as the Mayan civilisation entered its decadent phase, various new cults were introduced, including the worship of Quetzalcoatl from northern Mexico.^{cdxcvi} The Egyptian first intermediate period appears to have been a time of prophets and Messianism.^{cdxcvii} As American Indians came under increasing pressure from European settlers, they spawned various cults, including the Dreamers, the Ghost Dance and Peyotism.^{cdxcviii} In contemporary Melanesia, cargo cults have arisen in response to the sudden shock of exposure to technological civilisation.

The solution to the paradox is that the former, shared, civic religion, which people followed out of convention, becomes replaced by many different sects and cults, among which people choose according to their own conscience. The religions that take root in declining societies typically emphasise a personal relationship between adherent and deity, thus bypassing the institutions by which moral conformity used to be enforced. Mithraism, for example, was not a civic religion, and had no public ceremonies or professional priestly class. It was a secretive cult that revolved around intimate communion between the adherent and his god.^{cdxcix} It did little to promote a sense of community in society as a whole. For a while,

Mithraism was the most successful of the new religions in later Rome. However, it had no place for women, who actually provided the largest numerical support for the new faiths. It eventually lost ground to cults such as those of Isis, Cybele and Christ, which were more woman-friendly although no less personalised.

In the same way, after the fall of the Han dynasty, the people of China turned to Buddhism, an other worldly religion, while the more humanist Confucianism went into decline.^d During Europe's crisis of the fourteenth century, when traditional values gave way and the civic spirit was lost, new sects appeared and mysticism gained ground.^{di} On Easter Island, an esoteric bird man cult appears to have arisen during the late decadent phase, as the island descended into anarchy.^{dii} At Angkor, a new interpretation of Buddhism came to replace the traditional one during the late period and has been implicated in the rapid decadence of the Khmer empire.^{diii} Angkor's traditional Buddhism was nationalistic and involved a cult of the king, thus emphasising the role of the state and community in religious experience. The new sect, on the other hand, was more populist, and it opposed individual personality and the concept of deities. It appealed directly to the common person and obviated the need for a sacerdotal apparatus.^{diiiv}

New religions often explicitly challenge or contradict the traditional values of the society in which they take root. In this way, they achieve precisely the opposite effect to the outgoing religion, whose role is to affirm those same values. For example, St Augustine of Hippo, a hugely influential figure in the early Church, argued strongly that Rome's interests conflicted with and should be subordinated to those of Christianity. 'Please pardon us if our country, up above, has to cause trouble to yours', he said in his book, *City of God*.^{dvi}

Religious believers in declining societies are particularly fervent and out-worldly. In the late Roman empire, Christians developed a passionate obsession with doctrinal issues, and especially with promoting or opposing various theological positions concerning the Holy Trinity. Gregory of Nyssa observed that, in the heyday of vehement debate over the Arian heresy, shopkeepers seemed more interested in arguing about whether the Father was superior to the Son than in telling customers the prices of their wares.^{dvi}

These controversies illustrate that the Christianity of these times was itself fragmented, reflecting the extreme atomisation of Roman society. It was only as heresies were stamped out that Christianity became able to unite people in a Europe that was recovering from the Roman collapse. This was not achieved lightly. Many people were burned and tortured to create an unadulterated, community-based Christianity. In

the Albigensian crusade of the early thirteenth century, the inhabitants of this region in southern France were slaughtered by the tens of thousands, in order to eradicate the Cathar heresy that had taken root there.^{dvii} Through such methods, Christianity became unified and at the end of the middle ages it was in a position to take over the role once played by Rome's paganism. It permeated society with a sense of shared purpose and imbued the explorers and thinkers of the new age with confidence and vigour.^{dviii} In a similar way, Rome's original religion that served it during its heyday had been forged in Greece in the aftermath of the Mycenaean collapse.

The christological controversies of the later Roman empire were also a reflection of underlying human problems and aspirations.^{dix} People felt impotent within a society that was clearly in crisis. They turned to religion as a kind of displacement activity and because it offered the vision of an alternative world in which things could be put in order through the agency of human will. While the supernatural has never been far away from human concerns, the cults of declining societies have a particularly eschatological flavour. That is to say, they are concerned with final things, with decay and with termination. They reflect a sense of things drawing to a close, or of the ending of an era. They are concerned with preparing for a culminating event, such as the day of judgement, which is believed to be imminent, and they seek legitimacy elsewhere than in the status quo.

Innovators and imitators

Theoretical discussions of state formation sometimes distinguish between pristine and secondary states, i.e. between those that arise autonomously and those that are stimulated into existence through contact with pre-existing ones. Such a distinction, however, seems spurious. No state has developed entirely in isolation.^{dx} They have all built on the achievements of others, whether of predecessors or contemporaries. The point is, however, that nascent civilisations show they have something fresh to offer to history. The Romans, for example, took much from Greek culture, but they made it Roman. Inferior peoples, on the other hand, merely imitate. The conquered Britons uncritically took over the whole Roman way of life.

The borrowings made by ascendant societies can be regarded as healthy. Steeped in self-confidence, they transform whatever they inherit, forging from it something new and distinctive. The ancient Egyptians, for example, were in contact with Sumer during pre-dynastic times, and they must have had the Sumerian achievements as some kind of model. Yet, in the details, pharaonic civilisation was unique. Its hieroglyphic script, say, looked very different from the writing of its neighbour.

Societies that have failed to reinvigorate themselves with foreign ideas have stagnated and been disadvantaged in the long run. Its relative isolation gave the Mayan civilisation the freedom to erect impressive temples and cities.^{dxii} Yet Mayan society also remained very stable over the centuries, with essentially a stone age technology, so that it was left vulnerable to later invaders. Likewise, Japan up to the mid-nineteenth century abjured overseas expansion and prevented almost all contacts with foreigners.^{dxiii} In consequence, technological progress in Japan proceeded at a snail's pace. When an American expedition sailed into harbour in 1854 to force Japan open for commerce, the country could put up no credible resistance.

As they go into decline, societies become steadily less innovative. Creative poverty occurs on every front. The last six centuries of Mayan history involved decline in all aspects of material culture.^{dxiiii} The Harappan civilisation displays a record of progressive deterioration in virtually every indicator.^{dxv} The Romans stopped expanding, building and innovating. Things that several hundred years earlier the Romans seemed to do effortlessly now seemed to be beyond all reasonable expectation. The late Romans could not even maintain their heritage, let alone add to it. Before them, the people of Etruria, and the Italic world generally, had seemed to lose their vitality in a similar way. In comparison to the great strides being made by the Greeks and their colonies, the Etruscan civilisation of the fifth century BC became backward and provincial.^{dxvi}

Instead of absorbing and transforming foreign ideas, declining societies become passive imitators of cultural advances that are being made elsewhere. The late Etruscans, for example, developed a predilection for eastern fashions. Similarly, Mycenaean influence became increasingly important in Crete from 1500 BC, in the time leading up to the final demise of Minoan civilisation.^{dxvii} In central America, the gradual decline of the Olmecs has been linked to cultural inroads made by Teotihuacan and the Maya.^{dxviii} Later, the Maya themselves seem to have been emulating Toltec culture immediately prior to their collapse.^{dxix} During the Mayan post-classic period, the whole way of life was reoriented under the influence of alien gods and alien rulers.^{dxix}

Declining societies are especially likely to start taking a lead from the lesser cultures that have existed almost unnoticed on their periphery or even within their borders as economic migrants. The late Romans, for example, emulated the German barbarians who had infiltrated during the centuries of imperial rule. Romans eventually gave up the toga in favour of the German habit of wearing trousers, while the army adopted German swords.^{dxix} Declining societies can also come under

the rule of foreigners. These may seem to take over out of the blue but they have often been present as peaceful immigrants for some time beforehand. The middle kingdom of ancient Egypt, for example, is said to have been brought down by rather mysterious invaders, known as the Hyksos, whose rule represents one of the low points of pharaonic civilisation. Before the irruption of these foreign kings, migrants from Nubia and Palestine seem to have been already present in significant numbers.^{dxxi} Some pharaohs were taking Semitic names, such as Joam and Jakbaal, indicating that foreign ideas were gaining a considerable hold.^{dxxii} Similarly, when the German Odoacer deposed the last western Roman emperor, he did so in a land that was already chock full of his compatriots.

Community and individual

In inchoate and vigorous societies, the community takes precedence over the individual. Once societies are well established, the individual increasingly takes precedence over the community. People's behaviour becomes more overtly self-interested. Their rights are more explicitly defined. The state becomes more concerned with alleviating misery and improving well-being. These trends accelerate with decline, so that from the perspective of the ordinary person, things seem to be getting better in many ways.

A writer at the time of the collapse of the Egyptian old kingdom lamented that people's hearts had become greedy.^{dxxiii} Ordinary Greek citizens of the fourth century BC proved to be more interested in their private affairs than in the needs of the state. They looked to the city as a source of benefits rather than as something that demanded their loyalty and service. There was apparently a feeling that responsibility flowed in one direction only, from state to citizen.^{dxxiv} The Athenian statesman Demosthenes had a hard time persuading people to spend less money on subsidised theatre performances and more on national defence against the Macedonians.

Senators of the late Roman empire stood aloof from public life, their sense of civic duty having become almost wholly deficient. Many held no office of state, preferring instead to remain at home and enjoy their properties at leisure. They lived idly on their estates and were apparently oblivious to any wider claims on their time.^{dxv} Even when the barbarians were invading, late Romans showed no instinct except for their own individual interest.^{dxvi} A growing number of people effectively dropped out of civil society altogether, becoming anchorites and contemplatives.^{dxvii}

Throughout the history of the Roman empire, citizens achieved a progressive accumulation of rights, to an extent that came to hamper the very functioning of the society. The categories of people exempted from military service grew cripplingly numerous – senators, bureaucrats, clergymen and

many others were entitled to opt out. Those who were not exempted found other ways to avoid conscription. Various laws were introduced to improve the situation but they all proved ineffective in the long run.^{dxxviii}

The accumulation of rights in Rome also meant a process of democratisation and status equalisation, which began early. Already in the time of the republic, the offices of consul, praetor and censor, which had previously been reserved for patricians, were made open one by one to plebeians. The plebeians demanded a written law code and legal equality with the patricians. This was denied at first, but attitudes subsequently softened and the demands were granted. At the same time, prohibitions against intermarriage between the two classes were abolished.

Bit by bit, the imperial state continued the process of elevating the rights of the individual and improving the lot of ordinary people. The emperor Hadrian revoked the power of owners to kill their slaves. Then Alexander Severus revoked the (already obsolete) right of fathers to kill their sons. After that Justinian humanised the law all round, replacing capital punishments with lesser sentences. Later Constantine set limits to the punishment of slaves and made it illegal to separate slave families. He also increased the rights of women, making unilateral divorce more difficult and banning concubines.^{dxxix} Some jurists of these times argued in a remarkably enlightened fashion. Ulpian, for example, proclaimed that all human beings are born free and that slavery is unnatural. While striving to maintain the fundamental institutions of Roman law – i.e. family, private property, and sanctity of contracts – these jurists modified the concepts in a philanthropic and democratic direction, suggesting a new sensitivity for human rights.

There was also an acceleration of already existing tendencies to assist the poor, weak and defenceless. The protection and rights of Roman citizenship were steadily extended to cover virtually the entire population of the empire, barring slaves, though the motivation was arguably expansion of the tax base as much as philanthropy.^{dxxx} The emperor Septimius Severus introduced many initiatives to reduce discrimination against non-Italians and non-citizens. The provinces were no longer to be just exploited but developed through long term economic planning.^{dxxxi} Constantine provided a form of social security, for example granting assistance to poor families with children. He also improved the lot of debtors and the conditions in which prisoners were kept.^{dxxxii} Valentinian, a Danubian barbarian who came to the throne in AD 364, felt an unusually strong sense of duty to the poor, and tolerated differences of religious opinion.^{dxxxiii} The bloodthirsty games at the

colosseum, which had been built during the first century AD, became increasingly less acceptable in late Roman society. The practice of throwing criminals to the beasts was ended in 326, and gladiatorial combats, even those between volunteers, were abolished in 404, seventy years before the deposition of the last western emperor.

During the decline of Athens, rights to participate in the assembly, and possibly even vote, were extended to women, foreigners and even slaves.^{dxxxiv} Ordinary people also gained in rights and assertiveness as the Egyptian old kingdom neared its end. In the funerary religion, concepts and symbols that were originally devised for the exclusive use of the pharaohs became more widely adopted. This ‘democratisation of the afterlife’ was probably a reflection of what was happening in the society of the living. A literary work of the time, the Tale of the Eloquent Peasant, makes clear that the state ought to meet the aspirations of its ordinary citizens as well as those of more elevated individuals.^{dxxxv} The societies of ancient Iraq and the Hittites also showed a growing sensitivity to individual welfare, for example with decreasing severity in the penalties for crime.

The anti-social ones

The self-centred elevation of the individual in declining societies can be linked to a growth in crime, corruption and generally anti-social behaviour. When Rome was still young, one Greek author commented on the lack of corruption there, compared to his own homeland, which was already past its prime and where corruption was now endemic. By 59 BC, though, Julius Caesar was introducing laws to control declining standards. The poorly paid and increasingly numerous civil servants of later Rome were notoriously inhumane, self-serving and corrupt.^{dxxxvi} An anonymous pamphlet writer in the second half of the fourth century complained to the emperors of the day about the dishonest and extortionate provincial bureaucracy of the empire. The writer was also bothered by the degenerate legal system, in which the administration of justice had become plagued by the problem of bribery. He ended his pamphlet with a plea to ban all frivolous and dishonest suits, which were a growing problem in an increasingly litigious society.^{dxxxvii} Classical Athens had similarly become a ‘lawyer’s republic’ as it headed for decline.^{dxxxviii}

Crime generally was on the rise during the late Roman empire. The laws of Theodosius II, published in AD 438, show the curious nature of a descendant society’s response to this problem. They were based on a paradoxical combination of mounting severity and growing tolerance. Some of the late Roman legal code reflects increasingly humane and enlightened attitudes. However, other parts display almost hysterical repressive violence, presumably partly for deterrent effect and partly as

an expression of outrage against the spiralling criminality of a society that was losing its way. The whole criminal justice system was evidently proving ineffective. The laws of Theodosius II are monotonously repetitive, suggesting that they were circumvented, disobeyed and ignored.^{dxxxix}

Rising crime was also reported from the periods of Egyptian turmoil. In late Ptolemaic Egypt, when the society was nearing exhaustion, robbery was widespread and the constabulary was losing the battle with criminals. Similarly, on Easter Island, there seems to have been a decline in standards after the collapse of the powerful chiefdom that formerly existed there. The first Europeans found that the natives were inveterate pickpockets, who habitually hid their own belongings to stop them from being stolen. This certainly indicates a major breakdown of any sense of community.

An ascending society sets itself high standards, in behaviour and in the things it produces. As it moves towards decline, standards deteriorate on every front. The society becomes dominated, at its best, by an enlightened concern for human suffering, and, at its worst, by squalid self-interest. These measures of ascendancy are encapsulated in the following table.

Table 5-1: Social factors associated with the rise and fall of complex societies.

Ascendant	Declining
Labour-intensive art using costly materials	Art cheap, flamboyant and secular
Moral certainty	Tolerance and relativism
Civic responsibility	Diminishing commitment to the public good
Admiration of and striving for excellence	Celebration of ordinary people and their ordinary lives
Shared civic religion	Proliferation of cults based on personal commitment
Religion positive and in-worldly	Religion pessimistic and out-worldly
Creative forging of influences into a unique culture	Passive imitation of the culture of others
The community is more important than the individual	The individual is more important than the community

Chapter 6 - The human ferment

The inevitability of change

There have been many great civilisations – many vigorous societies boasting riches and power on a scale previously unimagined – and they have all experienced cultural decay and military reversal. Even after the most brilliant achievements, a people can wind up in misery.^{dxl} Adversity is no respecter of a society's age, nor of its wealth or its privileges. Nowhere has proved to be forever blessed, no matter how magnificent its temporary situation.

On the other hand, no society or people can be judged as permanently written off, however backward it may seem and however inauspicious its circumstances. The great civilisations of the past all came up from obscurity. It was never obvious in their early days that they would achieve so much. Before their ascent began, societies destined for greatness did not distinguish themselves in any way. Others often seemed at least as well placed to succeed. In the fourth century BC, Rome was just an insignificant town on the Italian coast, growing stronger but not as illustrious as the city states of southern Italy and Sicily.^{dxli} The future of the Latin people looked no brighter than that of the Greeks, Etruscans or other Italian tribes.^{dxliii} It was only in 290 BC, after Rome's victory in the third Samnite war, that its unusual momentum became discernible.^{dxliiii} In the long run, Rome would itself be overtaken by places that none could have expected to present a challenge – including North America, of which the Romans had never even heard.^{dxliv}

In the early 1500s, England's financial and commercial infrastructure was crude in comparison to those of France and Spain.^{dxlv} Observers would have been hard pushed to predict its subsequent emergence as the political and industrial capital of the world. Equally, Germany's dominance of the great power system after 1870 would have seemed unexpected just decades before, when it was a fragile and disunited entity in central Europe.^{dxlvi} A similar comment may be made about Europe generally. Around 1500, it was by no means obvious that Europe would come to dominate the world. If anything, the Islamic Ottoman empire seemed to be threatening to achieve this.^{dxlvii} Meanwhile, less than fifty years ago, the World Bank judged that the Philippines and Myanmar had the best prospects in south-east Asia, and Taiwan and South Korea the worst. The Philippines was then the richest country in the region and Hong Kong women flocked there as maids.^{dxlviii} Today these tables have turned.

Some societies have succeeded with such unpromising backgrounds that no one could ever have guessed their destiny. Sweden's cold climate does not seem conducive to the creation of an advanced society. Yet in the eighteenth century Sweden grew rapidly to become a major European

power.^{dxlix} and today it remains one of the most prosperous nations. Indeed, the very first civilisation, that of Sumer, rose in the far from ideal conditions of southern Iraq, with its hostile temperatures and steaming swamps surrounded by desert.

A country's fate has never been entirely in its own hands. Even if it maintains a steady course, its relative position is affected by the fact that societies are rising and falling all around. In the sixteenth and seventeenth centuries, Habsburg military pre-eminence was undermined as its rivals expanded their armies on a large scale.^{dl} In the nineteenth century, Britain headed a world-dominating empire, but since then it has lost enormous prestige despite growing in absolute prosperity almost every year.^{dli} The problem was that other countries industrialised and caught up.^{dlii}

A society's misfortune can allow others to rise. The demise of the Etruscan and south Italian coastal cities may have helped Greece to reach its apogee in the fifth century BC.^{dliiii} After the Harappan downfall, power shifted to the Ganges.^{dliiv} The Hittite king Suppiluliamas extended his empire by taking advantage of the weakness of the Egyptian pharaoh, Akhenaten, and conquered territory down to the Lebanese border as well as the whole of Asia Minor.^{dlii} Later, the fall of the Hittites made way for the Assyrians,^{dlii} who also benefited from the ebbing of Babylon's fortunes after the death of Hammurabi.^{dlii} The origins of the Nubian state of Napata lay in the vacuum left by the collapse of Egyptian power towards the end of the second millennium BC.^{dliiii}

The configuration of the world's different regions at any time is inevitably a transient thing. Disadvantaged countries come forward. Powerful ones lag behind. In doing so, they each affect the chances of others. So it goes round, ensuring that change is certain and neither good fortune nor ill fortune will last for ever.

The constancy of change

The typical history of a south-east Asian mandala has been characterised as a kind of regular cycle: establishment by the founder, expansion under the heir, decline and contraction under the heir's heir, and finally conquest by another mandala at an earlier point of the cycle. This is a neat picture of the way that societies' fortunes change. It is related to the idea that civilisations are born, mature and die, which was discussed by Plato and Machiavelli, among others. The truth is, however, that civilisations do not generally conform to a simple lifecycle, or parabolic trajectory of rise and fall. Nor do most of them simply become senescent and then die out in the manner of biological organisms.^{dlix} Typically, they experience repeated episodes of retreat and recovery, and their termination is often a messy

affair, with parts of the society living on in other forms and sometimes with long-delayed renaissances.

The Sumerian civilisation, for example, was gloriously restored in the shape of the third dynasty of Ur, after a lengthy period of decline.^{dlx} This neo-Sumerian period was just the last and greatest of several similar revivals.^{dlxi} Later the Babylonian civilisation, after its initial fall, was restored under Nebuchadnezzar and then, after conquest by the Assyrians, was restored a second time.^{dlxii} Equally, as far as classical Greece is concerned, the idea of a continuous downhill movement is wrong. After the Peloponnesian war, the situation of Athens looked quite desperate. Yet the city's fortunes revived quite dramatically in the ensuing decades and it even recovered its Aegean empire.^{dlxiii} The Macedonian conquest subsequently caused the great city states to lose enormous prestige, but their decline was uneven in both time and space, and there were bursts of recovery along the way.^{dlxiv}

Etruscan society, after 150 years of decline, underwent a marked resurgence during the second half of the fourth century and it was as vigorous as ever throughout the entire Hellenistic era.^{dlxv} Even during the deep Etruscan recession, the crisis was resisted in some areas,^{dlxvi} and decline did not afflict all parts of the Etruscan world equally or at the same time. The whole Etruscan relationship with Rome shows a series of reversals rather than an inexorable progression towards the final outcome. After initially being overthrown, Etruscan rule returned to Rome with the reign of Tarquinius Superbus from 534 to 509 BC. He fell in his turn, but this was still not the end.^{dlxvii} Lars Porsena of Clusium, another Etruscan king, briefly imposed his rule at Rome around 505 BC.^{dlxviii}

Change is often rapid. Major developments can occur in less than a generation, and are interspersed with longer periods of more or less equilibrium. Empires tend to be acquired in spurts under great leaders and they fall apart equally quickly under weak ones. Between inheriting the Macedonian throne at the age of 20 and dying in Babylon at the age of 33, Alexander the Great constructed an empire stretching from Egypt to India. His warring successors immediately divided the empire up into half a dozen kingdoms. One of them, Hellenistic Greece, was conquered by Rome in the second century BC. Another, Ptolemaic Egypt, succumbed in 30 BC.

The idea of a lifecycle is inadequate as a metaphor for the complex histories of real societies. The evidence everywhere is for a continual ferment of changing status relations between nations, rather than for a simple process of first accumulating and then dissipating status. When they are rising, societies experience setbacks. When they are falling, they experience periods of recovery. The history of the Tigris-Euphrates basin is littered with

the decline, resurgence and eventual demise of several nations, stretching over three thousand years. The Assyrian empire, like pharaonic Egypt, went through old, middle and new periods, these being separated by chaotic episodes.^{dlxix} After 1600 BC, the region's political history becomes very complicated with frequent realignments even though the region as a whole was increasingly unified.^{dlxx}

The Hittite kingdom presents a vivid saga of alternating advance and retrenchment. Beginning with the reign of Labarnas, their first great king, the Hittites expanded to the south and east, conquering north Syria and the Amorite kingdom of Babylon around 1600 BC. However, this proved only temporary and the territory was soon lost again.^{dlxxi} Around 1525 BC, the king Telipinus restored the Hittite state.^{dlxxii} This period of renewed vigour was followed by another period of impotence when the Hittites were sacked in their own lands.^{dlxxiii} Later, Suppiluliamas's empire proved to be the apogee of the Hittite experience. These were just the broadest changes in the Hittites' fortunes and behind them lay an even more complex pattern of advance, decline and resurgence.

The kingdom of Arzawa in western Asia Minor had a similar history of fluctuating fortunes. Having first been conquered by the Hittites, it reasserted its independence during the period of Hittite decline. It was then reconquered by Suppiluliamas, only to rise again in revolt.^{dlxxiv} Finally, Arzawa was crushed by Suppiluliamas's successor.^{dlxxv} Later, after the Hittite demise, a Phrygian kingdom was established here around 800 BC. It achieved great wealth and Midas, with his golden touch, was a Phrygian king. Before long, this society failed, and civilised life vanished from the region until the emergence of the Lydian kingdom, whose king Croesus also has a proverbial association with wealth. In the mid-sixth century BC, the region lost its independence altogether and became a province of Persia.^{dlxxvi}

The cities of classical Greece exhibit a kaleidoscope of changing power relations. Athens, Sparta, Thebes, Corinth and others were continually vying with each other, winning and losing in trade and war. Greece as a whole experienced two great flowerings: the Mycenaean civilisation and the city states, these being separated by some five or six centuries. The city of Mycenae itself, abandoned during the twelfth century BC, was resettled only to be destroyed again by the city of Argos in 468 BC.^{dlxxvii}

The history of Rome illustrates the way that decline can be arrested and reversed. During the third century, the empire was sliding into anarchy. It was racked by civil war, financial chaos and outbreaks of bubonic plague. In the space of fifty years, there were twenty emperors, all but two of

whom died violently. In AD 260, the emperor Valerian was captured by Persians and spent the rest of his life as a human footstool and mounting block for their king. When Diocletian became emperor in 284, he retrieved the situation with a series of reforms. Crisis was averted and the empire exhibited a new stamina and solidity during the next hundred years.^{dlxxviii} In a similar way, the Indian mutiny of 1857-9 might have been expected to finish off the British raj, which had become complacent and overexposed. Yet the British succeeded in quelling the rebellions, which were often vicious and spread like wildfire, and remarkably recovered to rule India for another ninety years.^{dlxxix}

Chinese history is packed with up and down movements. After the expansion and contraction of the Shang and of the Western Chou, the first unification of China took place under the Ch'in dynasty. The resulting empire lasted from 221 BC to AD 221. This was followed by the first partition lasting some forty years. After that came the second unification and second partition, the third unification and third partition, and finally the fourth unification, which lasted until the institution of the republic in 1912.^{dlxxx} This only outlines the major changes of fortune. Within each period, there were further minor variations in prosperity and stability. The initial triumph of the Ch'in, for example, was relatively short-lived.^{dlxxxi} Much of the later part of their reign was afflicted by troubles of one kind or another, and by 206 BC their empire had been inherited by the Han dynasty.

In central America, there was a complex pattern of changing relationships, with individual societies sometimes in the ascendant and sometimes in submission.^{dlxxxii} Civilisation here was continually shifting in focus and extent, unified at one moment, broken apart at the next. The Mixtec people, for example, had both successes and failures during their 850-year history from AD 668 to 1521. They were located in a geographical buffer zone between the coast and the highland and became subject to all the recurring waves of conquest, by Olmecs from the coast and then by Toltecs from the highlands. Subsequently, they themselves became conquerors and after 1350 extended south into Monte Alban. By 1450, however, they had again been overrun, this time by the Aztecs.^{dlxxxiii} Similarly, the Maya went into a decline after their classic period but then experienced a renaissance from AD 1000. There was new building, including an impressive new city at Uxmal. The Mayan roads were refurbished and extended, while walls were constructed around coastal cities. Trading posts spread along the coast and contact was made with Cuba and Jamaica. Mayan learning revived and painted books were produced in great numbers. These described virtually every aspect of Mayan culture, science

and way of life. One of the older and most lavish books, the Dresden Codex, was made into a new edition during this Mayan renaissance.^{dlxxxiv}

In the Anasazi region of the Colorado plateau, there was a pattern of mostly very small short-lived communities, each lasting perhaps one or two generations.^{dlxxxv} After the original townships of Chaco Canyon were abandoned around AD 1250, a new site was soon occupied at Mesa Verde.^{dlxxxvi} The Anasazi did not grow up, reach a peak and then decline. Instead, their society continually moved forward and backward in an irregular fashion until its final demise. A similar story took place in the south-eastern region, where Cahokia was the chief centre. This declined progressively over the period AD 1250 to 1450 when other centres at Spiro, Etowah and Moundville were flourishing.^{dlxxxvii} The latter never matched Cahokia in size and importance, but they show that decline did not hit the eastern woodlands in a straightforward manner. The archaeological record of the Delmarva peninsula, an offshoot of this society, similarly shows periods when culture was changing rapidly and periods when it was in equilibrium.^{dlxxxviii}

The last five hundred years in Europe have seen ever-changing relationships between the various powers. One author identifies at least four great fluctuations in Europe's economic fortunes since the twelfth century. These are associated with corresponding fluctuations in such areas as crime, civil unrest and family disruption. Within each fluctuation there were periods of equilibrium and periods of instability.^{dlxxxix} Wars were not evenly distributed but came in clusters.^{dlxc}

Over the longer term, it is possible to identify gross trends such as the ascent and descent of the Iberian states. On shorter time-scales, however, the strengths of individual nations have not moved in consistent directions. The relative fortunes of France and Britain, for example, have changed direction several times. After the accession of Louis XIV in 1660, France rose to become the most powerful European state.^{dlxci} By 1815, however, France was falling behind industrially and militarily. Its manufacturing output, equal to that of Britain in 1800, was at 40 percent of Britain's in 1860.^{dlxcii} By 1875, however, France's economy was gaining on that of Britain^{dlxciii} and it is now once more in the lead.

In relatively recent times, the Ottoman empire, Spain, the Netherlands, Sweden, Poland, Austria-Hungary and Prussia have all been leading powers.^{dlxciv} However, these nations followed divergent paths into the twentieth century. The Ottoman empire was to disappear altogether. Spain continued to decline. Sweden and the Netherlands emerged as still prosperous. Similarly, by the early eighteenth century, Russia was recognised to be a great power.^{dlxcv} After Waterloo, however, the

country was losing ground at an alarming rate, especially in the industrial sphere.^{dxvii} In absolute terms, it still seemed strong in the middle of the nineteenth century,^{dxviii} but the Crimean campaign of 1854-5 finally demonstrated its real backwardness.^{dxviii} By 1918, in the aftermath of the first world war and the October revolution, Russia was at an extraordinarily low ebb.

Overall, the history of Europe involves a chaotic and ever-changing scene, in which both short term and long term trends may reverse themselves repeatedly and seemingly unpredictably. To say that any one nation rose and then fell in importance is shorthand for a complex and vacillating sequence of relative movements. World history demonstrates the same point a fortiori. Social evolution is not continuous, cumulative and gradual. It goes in fits and starts.^{dxix} In every part of the ancient world, the course of civilisation was marked by interruptions.^{dc} In more recent times, societies have moved up and fallen back in relation to each other, like runners in a long distance race. The idea that civilisations just grow old and die like people does not account for the facts. It certainly cannot be regarded as a theory of decline.

Fluctuations on all scales

Changing fortunes are not just experienced by great civilisations. The same inconstancy afflicts much simpler societies. The prehistoric advance of the Polynesians across the Pacific, for example, is recognised as a triumph of navigation and exploration, in the most elementary of craft, that puzzles scholars to this day. Yet this remarkable migration had its setbacks. Many uninhabited islands showed evidence of previous occupation when discovered.^{dci} A number of them may have been settled and abandoned more than once. Some kind of oscillation of expansion and contraction seems to have taken place in the Pacific as a whole.

Within each Pacific island, social change also fluctuated in pace and direction. The isolated island group of Hawaii experienced in microcosm the same saga of expansion and contraction as the wider world. Over a thousand miles from the next habitable land, the Hawaiian islands were not settled until some time between AD 300 and 500. During the next thousand years or so, Hawaii saw the emergence of various rival chiefdoms. These engaged in territorial wars and acquired territories that sometimes extended over more than one island. Paramount chiefs would rule over client chiefs from whom they received tribute. However, their little empires tended to overstretch themselves and were eventually beaten back by rivals. Thus, the later prehistory of Hawaii is marked by a ceaseless rhythm of conquest, expansion, collapse and retrenchment.^{dci}

Even simpler societies may also experience fluctuations in their circumstances. For example,

there are regional differences in consumption patterns, division of labour and other characteristics among the Australian aborigines, which seem to indicate an element of dynamism in aboriginal society.^{dciii} In general and contrary to initial assumptions, the practices and situations of simple societies as they were when discovered by Europeans probably did not reflect thousands of years of stagnation. More likely, they represented a snapshot of a highly fluid situation.

The saga of rise and fall is by no means something that has afflicted the Romans and Egyptians and a few other ancient peoples. It is a characteristic feature of social change everywhere and at all times. Fluctuations occur on all scales, are of all durations, and affect societies of all different sizes.

Seamless history

To speak of the collapse of societies such as those of the Maya or Hittites is commonly accepted. However, this must be regarded as a loose way of talking about what has happened in the past. It is as wrong to think in terms of an abrupt and definitive catastrophe as to think of a smooth rise and fall. Civilisations may cease to be recognisable entities, but complexes of constituent elements live on in language, art and other forms.^{dciv} As they disappear, civilisations impart a legacy to those that come after them. Sumerians were assimilated by the Semites, Tunguses by the Chinese, and Wends by the Germans.^{dcv} Peoples may lose their identity, but their culture fuses with that of the newcomers and they do not really die out entirely.^{dci}

There are no longer any Etruscans, but this nation achieved a measure of immortality by inspiring Roman civilisation. The Etruscan language influenced the development of Latin and the word Rome is of Etruscan derivation.^{dcvii} The early Romans must have acquired many crucial institutions, perhaps including writing,^{dcviii} from this vigorous civilisation that already existed in northern Italy. Etruscans were possibly the original founders of Rome.^{dcix} There is strong archaeological evidence for an Etruscan presence in very early times and one part of the city was always known as the Etruscan village.^{dcox} When the Etruscans were granted Roman citizenship in 89 BC, it consummated a long history of contact and of merging between the two societies.^{dcoxi}

The cultures of other Italic peoples also persisted well into Roman times and made distinctive contributions to Roman civilisation.^{dcoxi} Augustus divided Italy into regions based on these original ethno-historical units, which in his day were still a living reality.^{dcoxi} To a similar but lesser extent, the Romans' great rivals, the Phoenicians, survived what is normally regarded as their emphatic demise and went on to influence Mediterranean civilisation through Rome. Carthage

may have been destroyed, but not all the Carthaginians were destroyed with it.^{dexiv} Phoenician spiritual ideas informed those of Rome and, in the late empire, long after they had been supposedly wiped out, Phoenician habits became fashionable.^{dexv}

The forced abdication of Romulus Augustulus in AD 476, which brought an end to the western Roman empire, produced changes in the European scene that were far less abrupt than is implied by the phrase 'the fall of the Roman empire'. This was certainly a shocking event, but more so in retrospect than it appeared at the time. For many decades, Gallo-Roman society had already been fragmenting into the petty dominions that were to characterise the Merovingian age.^{dexvi} In his new Italian kingdom, Odoacer peacefully took over what was left of the imperial state apparatus and he even placed the heads of the eastern emperor on his coins. The eastern emperors, meanwhile, kept Roman civilisation alive for another thousand years, in the form of the Byzantine empire. From their perspective, the Roman empire still existed but just with a different focus. Those who ruled in the west were considered co-emperors and recognised themselves as such. On occasion, the eastern emperors militarily reasserted their authority over the Italian peninsula, reconstituting the empire in a real sense.

In a similar way, Phoenician civilisation shifted its focus to the western Mediterranean, after a pounding by Babylonians, Persians and Alexander the Great in its Levantine homeland. Hittite civilisation also shifted its focus. After being eradicated in its homeland of Asia Minor, Hittite culture was maintained in the former south-eastern provinces, where local people had adopted their conquerors' way of life.^{dexvii} These neo-Hittite kingdoms in their turn influenced the Assyrians and the Israelites, to whom they paid tribute and supplied harem wives.^{dexviii} Eventually, they became absorbed into the Assyrian empire and lost their separate identity by the eighth century BC.^{dexix}

The Harappan civilisation is often described as having risen and fallen largely in isolation, unheard of until it began to be excavated in the early part of the twentieth century. However, certain features of this civilisation did survive the abandonment of the great cities.^{dexx} Their way of life faded into the Indian cultural landscape.^{dexxi} On Crete, a large number of at least the common people must have survived the great disaster that is believed to have ended the Minoan civilisation. These people reoccupied the sites after an interval.^{dexxii} While the Mycenaeans came to dominate this part of the Mediterranean, Minoan culture persisted in a weakened and decadent form, and there was still some trade with other regions.^{dexxiii} The Minoan demise was not so abrupt as it is often painted. Rather it tapered into other cultural traditions that

came to assert themselves in the region. On the middle Nile, early Christian society showed remarkable continuity with the pre-Christian culture that it replaced, and many of the same houses remained in use.^{dexxiv} In south-east Asia, the Angkorian mandala did not so much collapse as shift its ground, in the sense that rival mandalas grew at its expense, acquiring and elaborating on its wealth and culture.^{dexxv} Some of the customs of Angkor have persisted into the twentieth century, in the court rituals of the Thai monarchy.^{dexxvi}

The Maya, with their desolate, jungle-clad cities, present one of the classic examples of collapse. However, it is wrong to assume that the whole area was abandoned just because activities ceased in the great ceremonial centres. In fact, Cortés found a considerable population and numerous settlements here, when he passed through the region in the sixteenth century.^{dexxvii} Some of the cities were still inhabited, albeit that no new building had been done for some 300 years. One place was dubbed Great Cairo on account of its impressive population.^{dexxviii} At Campeche, the Spaniards found that blood sacrifices were still being made in the temples,^{dexxix} while the city of Tulum, founded in AD 564, was still flourishing when they reached it in 1519.^{dexxx} The people of this area may have lost considerable ground since the classic period, but they still impressed the Spaniards as quite civilised in comparison to the Indians of the Caribbean.^{dexxxi} In any case, Mayan culture had influenced the development of societies on the high Mexican plateaux, and it persisted into historical times, blending with that of European colonisers but transmitting its distinctive memory down to the present day.^{dexxxii}

When the city of Monte Alban was abandoned, its Zapotec inhabitants maintained a vigorous culture^{dexxxiii} and exerted an influence on the Aztecs.^{dexxxiv} The Toltecs similarly influenced Aztec civilisation, especially in architecture, even as their own society was experiencing drastic setbacks.^{dexxxv} The Aztecs themselves lived on, after the disruptions of the conquistadors. Tenochtitlan was overthrown but the city of Azcapotzalco continued to flourish across the lake^{dexxxvi} and Aztec culture and traditions have left a ubiquitous legacy in the region. In North America, elements of Hopewell culture persisted on the coast after its collapse in AD 400. These influenced the Mississippian society that began to rise around AD 700.^{dexxxvii}

Societies seldom, if ever, disappear entirely. Others, coming after, inherit and build on their achievements. Each one, including those extant today, is only a link in an endless chain of peoples.^{dexxxviii} History is not the tale of discrete civilisations coming and going, but of a seamless whole in perpetual ferment. The changes in any given place are linked to what has gone before, to

what will come after and to everything that is going on round about. On the broadest possible view, all human experience is knit into one restless mosaic.

Experiences much the same

Even a non-specialist can distinguish Egyptian art from that of the Aztecs or Chinese. Yet art in general is something that people everywhere produce and consume. In their outward show, societies can look very different, but beneath there lies a core of shared humanity. One comparative study of seven early civilisations concluded that they had many basic features in common, not only with each other but also with the modern world. Its author reported being surprised by the extent of the resemblances.^{dcxxxix} Many societies based on simple technology have presented a characteristic pattern in which prominent settlements are on average about 25 miles apart. These include the Mycenaean, Mayan, Minoan, and Etruscan civilisations.^{dcxl} The kingship of the Anglo-Saxons resembles kingship among the Sudanese and other African peoples,^{dcxli} and even has echoes in the authority structures of American youth gangs.^{dcxlii}

Edward Tylor, a Victorian professor of anthropology, observed that any society's cultural practices almost always have parallels in other societies, even though they may be thousands of miles away and quite different in other characteristics.^{dcxliii} Scalping, for instance, was practised by American Indians, as everyone knows, but it was also reported by Herodotus as a practice of the Scythians.^{dcxliv} Some American Indians told oracles by heating bones and examining the cracks, a practice that existed in Albania no more than a few decades ago and was also current among the ancient Chinese.^{dcxlv} There are similarities between central American and ancient western Eurasian writing.^{dcxlv} Maori lake dwellings share many features with those of ancient Switzerland. There need be no mystery about such duplication. When faced with similar problems and opportunities, people tend to settle on similar solutions. Oracles satisfy some fundamental human need, and people look for them everywhere. There are only so many ways to build a lake dwelling. Throughout history and all across the world, the issues and the human responses have had much in common. Continual change leads only to the eternal return of certain types. Minoan fashions, for example, are being reinvented in Paris today.^{dcxlvii}

The late Roman system of compulsory labour amounted to the same thing as the Mexican system of debt peonage.^{dcxlviii} The Inca system of appointing one individual as the leader of every ten households, to keep the peace and collect taxes, was identical to the European tithing-man system of the middle ages, as well as to a system practised in pre-revolutionary China.^{dcxlix} These similarities can be understood in terms of the logical possibilities for controlling a population when

communications are limited. In the mid-twentieth century, seemingly very different societies responded to the challenges of modernity in almost identical ways. European fascists had much in common with Japanese nationalists and with the Kuomintang regime in China.^{dc}

The Iroquois Indians of North America developed a sophisticated system of dream analysis. Two hundred years before Freud, they recognised the Freudian concept of subconscious influences and the idea that the conscious mind attempts to suppress unpleasant thoughts. They understood how these may emerge in dreams and how the frustration of unconscious desires can cause mental and physical (psychosomatic) illness.^{dc} Africans and Europeans both employed the concept of witchcraft in explaining the origins of evil.^{dc} Eskimos and African Yorubas, in spite of widely differing lifestyles, recognise a condition equivalent to schizophrenia, whose incidence is about the same as in developed countries.^{dc} Human minds, it seems, function in similar ways and human creativity must work within a finite repertoire of possibilities.

When simple societies are compared with complex ones, the gaps in the way of life can seem to be very large. Yet the raw human material is not so different. Peoples with no urban tradition have adjusted very readily to city living during the twentieth century. Foragers and subsistence farmers have learned market behaviour with alacrity once circumstances permit.^{dc} After European fur traders arrived in sub-Arctic Canada, small-scale capitalism sprung up among the natives almost overnight. A Frenchman writing in 1611 remarked on how sharp the Indians were as businesspeople.^{dc} While anthropologists have made much of the ceremonial exchange systems of Melanesian islanders, the practice of ordinary barter is equally important to them.^{dc}

People in simple societies may appear backward because of their belief in sub-rational phenomena such as omens, witchdoctors, and rain dances. Yet people in supposedly rational, technological societies have lucky numbers and read their horoscopes. A British journalist, who prides himself on his urbanity and sophistication, describes looking for omens in the card games he plays with his computer.^{dc} It is mistaken to imagine that people in simple societies accept their superstitions uncritically and are any more credulous than say churchgoers in the developed countries. The Dinka people of the Sudan do an annual ceremony to cure malaria, but they time it for the month when malaria tends to abate anyway. At the end of the ceremony, the celebrant reminds people to go to the clinic if they wish to be cured. One anthropologist witnessed a rain dance performed by a group of Kalahari foragers, following which a cloud appeared on the horizon,

approached and let out some rain. The anthropologist asked if the rain dance had caused the rain. He was laughed to scorn.^{dclviii}

Ignorance should never be confused with stupidity. Members of simple societies may even be more intelligent on average than industrialised peoples, since their environment is generally less forgiving to the slow-witted.^{dclix} Doubt, independent thinking and disrespect for traditional wisdom are not exclusive to modern, industrialised societies. Even tribal societies have their philosophers and reformers.^{dclx} People living simple lives with little or no formal education can still exercise freedom of choice and think critically about social and natural phenomena.^{dclxi} Their knowledge of the natural world is remarkably good. For example, they classify their local bird populations almost exactly as ornithologists do, suggesting they can be just as clear-minded as university researchers.^{dclxii} If their ideas seem fanciful, it is largely a matter of them being unschooled and ill-informed. The psychologist Jean Piaget demonstrated that a small amount of instruction can rapidly eliminate many misconceptions.^{dclxiii}

All sorts of basic inventions that are now taken for granted, to do with making clothes say or preparing food, would not have been so obvious when first invented long ago.^{dclxiv} There are simple societies but not simple people. The Australian aborigines, who never developed agriculture, normally replant a few seeds to ensure regeneration. They have the basic knowledge to initiate agriculture and so their foraging lifestyle is in some part a matter of choice.^{dclxv} The aborigines certainly do not want for intellectual capacity. Witness the remarkable engineering of the boomerang or the ability to survive in hostile country where the uninitiated would die within days.^{dclxvi}

Overall, there is little reason to regard the people of historical or simpler societies as fundamentally different from the average person in a complex society. Strip away the detail and their attitudes, concerns and capacities are seen to be not so unfamiliar. There is no such thing as a primitive

people with a primitive outlook on life, whether one is thinking of contemporary societies or of ancient ones. Prehistoric cave art is not made up of crude daubing but gives evidence of a highly developed and diversified aesthetic vision. Regardless of their simple circumstances, those ancient artists experimented with representational and non-representational styles, and they knew perfectly well what they were doing.^{dclxvii}

In simple societies and in complex ones, and in the times of the Greeks or Romans as well as today, people have followed a career with many similar features. This includes the fact, for example, that it is usually by the late thirties that it becomes clear whether individuals are going to be a resounding success, or one of their society's failures, or somewhere in between.^{dclxviii} At a great distance, the ordinary people may seem faceless and obscure, but their experiences were just as rich as anyone's today. Peasants have never been helpless fodder for history. They have been able to advance themselves, while privileged people have been able to fall behind, so that there was always a continual turnover in the social classes.^{dclxix} In 1800, a crowd outside a London prison chanted 'Pull down the Bastille'. They were demonstrating in support of certain radical leaders who were being held inside.^{dclxx} People like these knew what was going on in the world and they were full participants in it.

It is too easy to regard simple societies or ancient ones as stagnant and the lives of their members as narrow and monochrome. In fact, the broad dimensions of life – childhood, marriage, work, families, old age – have been the same in every milieu. It is just the details that change. Foreign holidays, for example, are nothing new, only they used to be called pilgrimages. In the middle ages, travel to places like Jerusalem, Rome and the tomb of Saint James in north-west Spain was big business for hoteliers and tour guides.^{dclxxi} Technologies may improve, and styles may vary, but the fundamentals of human experience, everywhere and throughout history, have been much the same.

Chapter 7 - Rotten at the core

Mishaps

A classic image of social collapse, which is typified by the Atlantis myth, involves a sudden natural disaster. The demise of the Minoan civilisation has been linked in this way to a huge volcanic eruption that blew apart the island of Thera, 100 kilometres north of Crete, around 1500 BC.^{dclxxii} It has similarly been argued that the near-simultaneous collapse of civilisations in Iraq, Egypt and the Indus valley around 2200 BC may have followed from the earth's collision with a comet. The presence of meteoritic material in archaeological excavations in the middle east, along with evidence for climatic change and huge forest fires elsewhere, suggests an event of world-wide significance.^{dclxxiii} A cometary impact has also been mooted as a factor hastening the collapse of Roman civilisation in Europe.^{dclxxiv}

Many analyses of social failure concentrate on these kinds of discrete and specific causes rather than on the idea of a general process. They do not recognise history as involving fluctuations on all temporal and spatial scales. They do not portray decline and collapse as part of a continuum of change. In consequence, such explanations are of limited application. They may illuminate the past but they yield few definite conclusions about the prospects for civilisation today. At best they offer only something like a warning. Nevertheless, these explanations are popular and they come in many different flavours.

Some societies are believed to have been affected by a general deterioration in climate. The Maya were afflicted by droughts, hurricanes and plagues of locusts as their civilisation neared its end.^{dclxxv} Great Zimbabwe may have been abandoned after an unlucky run of years with insufficient rainfall and an extremely poor harvest.^{dclxxvi} It is likely that similar problems lay behind the changing fortunes of cities along the east African coast.^{dclxxvii} Ethiopia's development has also possibly been inhibited by the periodic crop failures that have hit the highlands since the ninth century AD.^{dclxxviii}

The collapse of the Egyptian old kingdom may have been hastened by changes in rainfall patterns that affected the source of the Nile and reduced its ability to replenish Egypt's soil. A carving from this period shows people apparently suffering from famine.^{dclxxix} The whole middle east experienced social upheaval at this time, possibly because of severe and prolonged drought on a regional scale.^{dclxxx} Climatologists have concluded that this could be explained by a northward shift of the storm track, which would have produced exactly the pattern indicated by the historical evidence.^{dclxxxi}

The collapses of the Hopewell culture, the western Roman empire and the Meroitic kingdom

of the middle Nile have all been linked to climate changes of the fifth century, when it was becoming cooler world-wide.^{dclxxxii} The same is true at Chaco Canyon, where the large pueblos were abandoned in conjunction with a fifty year period of substantially cooler and drier weather.^{dclxxxiii} This was always a marginal environment for human occupation in the first place^{dclxxxiv} and there are signs of definite malnutrition in late burials.^{dclxxxv} The Toltec downfall may have been precipitated by chronic drought during the first half of the twelfth century.^{dclxxxvi} The Mississippian culture has sometimes been characterised as an early victim of the little ice age, the period of global cooling that reached its climax during the seventeenth century.^{dclxxxvii}

Silting of watercourses is another environmental change that has been implicated in social decline through its impact on agriculture, communication and trade. Termination of the resurgent prosperity of northern Etruria, around the early fourth century BC, has been attributed in part to the silting of the port of Spina.^{dclxxxviii} Silting of canals and reservoirs also took place at Angkor.^{dclxxxix} In southern Iraq, the Tigris and Euphrates meander erratically at a shallow gradient and do not have enough force to move silt downstream. Their beds tend to rise above the level of the surrounding plain forcing the river to change its course. Such shifts must have destroyed the viability of the region's ancient cities, as the riverbanks where they once flourished turned into waterless wasteland.^{dclxc} Their sites are now usually far out in the desert, many miles from the modern course of the river.^{dclxci} Similar problems seem to have affected the Harappan civilisation, where changes in the course and flow of the river left the traditional agricultural lands literally high and dry.^{dclxcii}

In some cases, people may have undercut their own survival by exhausting the very thing on which their prosperity was based. The demise of Etruscan civilisation has been linked to declining productivity in its mines.^{dclxciii} In a similar manner, some people perhaps ruined their own environment. Southern Arabia, once green and prosperous, is now covered in sand dunes.^{dclxciv} Agricultural decline resulting from changing environmental conditions has been suggested as a contributory factor in the failure of classical Greek civilisation.^{dclxcv} The dry, rocky landscapes that prevail in Greece and southern Italy today are the consequence of ancient erosion, after the forests were cut down and their wildlife hunted to oblivion. The characteristic Mediterranean maquis has been described as nature's way of trying to break up the rocks and make some soil again.^{dclxcvi}

Many problems have arisen from the practice of irrigation. Passing river water through shallow

irrigation channels leads to an accumulation of salts in the soil, making it less hospitable to plants. This was a problem in the Tigris-Euphrates basin, where various ancient texts record the negative effects of salination.^{dccxvii} Cultivators were forced to replace wheat with more salt-tolerant barley. One author suggests that the progress of salination upstream was the reason why power passed from Sumer, via Akkad and Babylon, to Assyria in the north.^{dccxviii} The Harappan civilisation also seems to have been a victim of salination, the damage to the soil being obvious to this day.^{dccxix} There was a change to the cultivation of millet, which is hardier but less nutritious than other crops. In Europe today, millet is considered to be bird feed. The Harappans probably only adopted it as a response to the worsening fertility.^{dcc}

An alternative way in which people have damaged their environment is through deforestation. This has been suggested as another possible factor in the Harappan decline.^{dcci} The occupants of Great Zimbabwe may also have exacerbated natural environmental decline by exhausting the soils and the firewood of the region.^{dccii} The Maya practised swiddening or slash-and-burn agriculture, whereby farmers gradually move through the forest, leaving it to regenerate behind them. As the Mayan population grew larger, the forest may have been left with insufficient time to recover, and the resulting agricultural problems may have contributed to decline.^{dcciii} Skeletons from late classical times (including some aristocrats) show signs of malnutrition.^{dcciv} The decline of Teotihuacan could have been caused by a similar debacle.^{dccv} Lime cement was used widely throughout the city and required vast quantities of wood in its preparation. The masons of Teotihuacan may have denuded the countryside, destroying the basis of their activities.^{dccvi}

Environmental deterioration is frequently cited as a source of difficulty in the Pacific islands. Being small, these presented their inhabitants with few options. On Hawaii, though it was only settled in the first millennium AD, shifting cultivation had begun to initiate environmental degradation by the twelfth century.^{dccvii} The Easter Islanders rendered their island almost completely treeless, though it had once had good forest cover. The lack of anything other than driftwood may have been a factor in the island's social regression. Without wooden poles, for instance, they could no longer erect their famous statues. Deforestation was common throughout the Pacific. The effects may not have been all bad, since erosion of the denuded highlands initially deposited enriching soil in the more easily cultivable lowland regions.^{dccviii} Yet this was hardly sustainable. The most likely reason why some islands were occupied and then abandoned is some kind of ecological crunch,

possibly of the inhabitants' own making.^{dccix} Human hunters in New Zealand drove a whole genus of flightless birds to extinction, within centuries of their arrival.^{dccx}

Another powerful image of collapse involves rude barbarians sweeping down on an effete civilisation and laying it waste. Wherever people have reached a high level of development they have become a target for the uncivilised forces pressing on their frontier.^{dccxi} Odoacer's deposing of the last western emperor is a classic illustration of this. The Roman frontier was steadily pushed back by barbarian incursions. Around AD 600, a letter from Pope Gregory commiserated with the Christians of the Dalmatian coast, where civilisation was dying under the attacks of Avars and Slavs.^{dccxii} The Akkadian empire fragmented under the onslaught of people moving in from the highlands.^{dccxiii} The whole of Iraq was in turmoil from 2150 to 2050 BC, due to the activities of invaders from Iran.^{dccxiv} An invasion by less civilised Canaanites is associated with the decline of the third dynasty of Ur,^{dccxv} and Babylon collapsed for the first time after invasions by Kassites, Elamites and the up-coming Hittites.^{dccxvi}

The most widely accepted theory for the failure of the Harappan civilisation is that it fell to Aryan invaders under the war-god Indra – a name which means fort-destroyer.^{dccxvii} The Hittite empire is also believed to have succumbed to some kind of barbarian onslaught.^{dccxviii} Around 1200 BC, it disintegrated under the pressure of a rather mysterious group called the sea peoples^{dccxix} and the Hittites fled with other local races into Syria.^{dccxx} The same sea peoples attacked Egypt.^{dccxxi} In south-east Asia, the mandalas of the Mekong delta tended to collapse following military incursions.^{dccxxii} Raiding recurs frequently as a possible explanatory factor in the decline and disappearance of African cities.^{dccxxiii} The people who succeeded the Meroitic kingdom appeared suddenly and may well have been intruders.^{dccxxiv} The failure of societies in east Africa appears to be associated with the movement of Bantu populations up the Tanzanian and Kenyan coasts.^{dccxxv}

China long served as a magnet for invaders. Its history is punctuated by barbarian conquests. Between 1000 and 700 BC, the Western Chou were repeatedly pressed by less developed peoples from the north.^{dccxxvi} The raids increased in frequency until the empire collapsed.^{dccxxvii} After China's second unification, there were again problems from the north and the emperors had to withdraw southwards.^{dccxxviii} In AD 1279, the Sung dynasty, which had brought China to undreamed of heights of culture and science, was extinguished by the hordes of Genghis Khan. To contemporaries it seemed like the end of the world.^{dccxxix} Less than a hundred years later, the Ming dynasty re-established Chinese rule^{dccxxx} only to be invaded

in its turn. The emperor committed suicide and the conquering Ch'ing established a new dynasty.^{dccxxxi}

The history of pre-Columbian America echoes the old world experience of invasion and collapse. Teotihuacan fell to the Chichimecs.^{dccxxxi} The expelled inhabitants founded a new city at Tula, but this fell to further invaders in AD 1116.^{dccxxxi} The Maya seem to have come under foreign rule in the last century of the classic period.^{dccxxxi} It is telling that Mayan civilisation disappeared first in the easily invaded regions and only later in the more remote north Peten of Guatemala.^{dccxxxi}

The invaders who bring down civilisations are not necessarily driven by mere ignorance and vandalism. They are often just more vigorous peoples on their own ascent to high civilisation. The rising Babylonian empire destroyed the Assyrian empire in 600 BC.^{dccxxxi} Later, Babylon fell in turn to Cyrus the Persian and to Alexander the Great.^{dccxxxi} Similarly, Phoenician civilisation was destroyed by the incipient Roman empire. The Romans were also the scourge of the Etruscans, dealing them a devastating blow with the capture of Veii in 369 BC. This was the beginning of the end for Etruscan civilisation, though it lasted another three centuries.^{dccxxxi}

In the past five hundred years, many peoples, from simple societies to whole urban civilisations, have met their demise at the hands of technologically superior and militarily aggressive Europeans. The African city of Sofala crumbled after an early and violent attack by the Portuguese.^{dccxxxi} In America, the Europeans had their most devastating effect. They overthrew the Aztec and Inca empires, and in 1697 took possession of Tayasal, the last surviving Mayan city, where people had lived for 3700 years.^{dccxxxi} The Spanish conquistadors may not have been classic barbarians, but their basic motivation – plunder – and the outcome – destruction of a complex society – were the same.

The new world was overwhelmed by another kind of invader that accompanied the conquistadors – infectious disease. American populations had no immunity to old world diseases like measles and smallpox. These swept through them, drastically reducing their numbers and causing social disruption, in many cases long before they even saw a European. Epidemics were also possibly responsible for the demise of some cities on the east African coast.^{dccxxxi} Their large populations and doubtful sanitation provided ideal conditions for disease to flourish. This may account for the continual turnover of these cities. A plague hit Athens before the Peloponnesian war and possibly contributed to its defeat by Sparta.^{dccxxxi} Bubonic plagues may also have weakened fifth century Britain and helped it succumb to Anglo-Saxon invaders.^{dccxxxi} Later, in both the fourteenth and seventeenth centuries, plague in Europe

exacerbated the effects of war, insurrection and unreliable harvests.^{dccxxxi}

Some societies may have exhausted themselves through prolonged warfare. The final phase on Easter Island, for example, seems to have been one of bitter warfare between two different ethnic groups.^{dccxxxi} During this time, obsidian spearheads seem to have been suddenly invented and then manufactured in great profusion.^{dccxxxi} Chronic raiding and warfare forced people to live in caves and lava tubes with narrow entrances.^{dccxxxi} Any form of ordered society on the island became impossible.^{dccxxxi}

Other societies are said to have been brought down by internal revolt. Uprisings by disaffected citizenry occurred late in classical Greece and were certainly a factor in the decline of the city states.^{dccxxxi} Some scholars think that a revolution, or struggle between contending dynasties, could have helped end the Mayan civilisation.^{dccxxxi} In China, revolts broke out after the death of Shih Huang Ti, bringing down the empire he had built.^{dccxxxi} Rebellions also became general after AD 875, causing China to fall apart in 906. In seventeenth century Europe, the gradual collapse of Spanish Habsburg power is attributed to the series of revolts and cessions that plagued the Spanish empire.^{dccxxxi}

This adds up to a large number of ideas about the causes of social decline. Some concern external challenges while others are self-inflicted. Yet they all account only for unique sequences of events in particular places. To draw any strong conclusions from this jumble of human experience, it is necessary to interpret history as more than a succession of mishaps. It is necessary to identify some fundamental themes that lie behind the surface detail and that unify these seemingly disparate episodes at a more basic level. Too many of the explanations are based on circumstantial evidence and on the elaborate interpretation of sparse facts. Too often they compete with and even contradict each other. Under close examination, therefore, they can easily seem dissatisfying and incomplete. That in particular suggests that some sort of deeper insight is called for.

Doubtful explanations

The various accounts of decline may sometimes be convincing on their own terms and in application to the specific instances where they are applied. However, it will be noticed that many instances of social failure benefit from more than one explanation. For example, possible reasons suggested for the collapse of Mayan civilisation include, from one authority, insufficient food, invasion, and rebellion,^{dccxxxi} and, from another, savanna creation, disease, and loss of girls due to infanticide or lack of care.^{dccxxxi} In the latter case, the writer notes that none are really satisfactory and goes on to propose his own theory based on a series

of peasant revolts.^{dcclv} Yet another expert speculates that, as new fields were needed to support the growing urban population, Mayan farmers would have had to move further and further from the city, and this agricultural decentralisation might have contributed to the disintegration of the cities.^{dcclvi}

Clearly, when it comes to explanations for the Mayan collapse, there is an embarrassment of riches. In truth, nobody really knows what caused this civilisation to decline. It might have been one of these factors, or some combination, or all of them, or perhaps none. It is impossible to be definitive. The same is true in most other cases of social retrenchment. The supposed explanations represent plausible speculation rather than certain knowledge. For instance, one author suggests that the widespread destruction of statues on Easter Island may have been to destroy the enemy's magic power, or to upset them by destroying their property, or it may have been a revolt of the underclass against excessive demands by the elite.^{dcclvii} It is obvious that a large element of interpretation is involved.

There are often lacunae in the evidence that give plenty of scope for such interpretation. For instance, the two episodes of general catastrophe that seem to have afflicted the ancient middle east have both been attributed to barbarian invasion. However, little is known about the identity of these barbarians.^{dcclviii} They simply provide a readily understandable explanation for what might otherwise seem like an obscure series of calamities. The archaeological evidence for their activity is meagre or non-existent.^{dcclix}

In some cases, it is not even clear that the social disasters to be explained were even real phenomena. Some have argued that the supposed episodes of decline and obscurity in the ancient middle east are merely artefacts of mistaken dating. Similarly, there are doubts about the reality of the general crisis that is supposed to have afflicted Europe in the seventeenth century AD, when cold weather depressed harvests and caused severe hardship among people living close to the margin. Contemporaries and subsequent historians detected an unusual intensity to the troubles of this period, when vagrancy emerged as a serious problem against a backdrop of rapid militarisation and religious division. In the following century, Voltaire observed that political upheavals had occurred all over the world, ranging from Cromwell's English rebellion of 1642-60, via the Moscow revolts, to the Manchu rebellion of 1638-44. Yet recent historians, examining the evidence in depth, have cast doubt on this common perception and asked whether its problems really distinguished the seventeenth century from any other period.^{dcclx}

In many other cases, seemingly credible explanations dissolve on detailed inspection. For instance, the obvious mechanism for the abandonment of Chaco Canyon is certainly some kind of environmental change that tipped this ecosystem over the edge and rendered human subsistence non-viable. Theories linking the Chaco collapse to climatic problems of the twelfth century have therefore been readily acceptable to archaeologists. However, the embarrassing fact is that there is no clear evidence for a major climatic deterioration in the early twelfth century,^{dcclxi} i.e. the crucial period when Chaco Canyon began to fail. It was actually later that the climate became harsher, but by then the abandonment was well under way.

Similarly, the disruption following the end of the Egyptian old kingdom has also been attributed to environmental setbacks. Yet, although texts from this time mention famine and low Niles, they do not seem to emphasise them.^{dcclxii} One recent author presents it simply as a matter of faith that non-climatic causes could not be sufficient to cause disruptions of such magnitude.^{dcclxiii} This is hardly convincing. Furthermore, the same author unwittingly hints at gaps in her own analysis by suggesting that climatic deterioration sets in motion other forces that bring a society to its doom.^{dcclxiv} This implies that the mechanism is relatively complex and casts doubt on whether climate change is necessarily the prime mover.

In the case of the Hopewell culture, climatic cooling and social decline are closely associated in time. Yet what seems to be a ready explanation again has problems on close analysis. Agriculture, which would have been compromised most by such a climate change, played an insignificant role in Hopewell subsistence.^{dcclxv} The putative link between the later Mississippian collapse and the little ice age is also suspect, given that other farming groups, such as the Iroquois, were actually flourishing at this very time.^{dcclxvi}

The theory that attributes Mayan decline to profligate swiddening and environmental damage is rather contradicted by the fact that the highly fertile city of Quirigua was one of the first to stop functioning.^{dcclxvii} During previous periods of drought, the Maya seem to have abandoned their cities and moved into the jungle where they survived on the bark of trees until it was possible to return to urban living.^{dcclxviii} Clearly, environmental stresses were not necessarily as apocalyptic as is imagined. The Maya could ride them out, if they wanted to. With respect to other conjectured explanations, there is no really firm evidence of a major climate change around the time of the Mayan collapse, nor of extraordinary diseases, nor of large scale wars.^{dcclxix}

Even the demise of the Roman empire, which is well documented and extensively studied, has

been the occasion of much theorising but no firm consensus. Some of the reasons given for its passing include depopulation, overtaxation of the provinces, and the arrival of Christianity. One expert states clearly that none of these explanations are really satisfactory.^{dclclxx} Edward Gibbon, who devoted half a lifetime to the study, concluded that Rome died of immoderate greatness^{dclclxxi} – a suggestion that seems by and large to beg the question it is intended to answer.

Although the arrival of the Saxons is strongly associated with the turmoil into which Britain was plunged after the Roman withdrawal, the only thing that can be said with certainty is that it occurred some time between AD 400 and 600. It is difficult to be more precise and to link the Saxon arrival explicitly to the departure of the legions. It is not even certain whether the Saxons arrived all at once or over an extended period. Bede says that they settled Britain between AD 449 and 538,^{dclclxxii} by which time the Romans were already long gone. This rather exonerates them from being the original stimulus for the catastrophe that overtook this former Roman province.

In the case of the Maya again, while there is evidence for invasion it seems to have been at best a minor and secondary factor in the collapse of the ceremonial centres.^{dclclxxiii} In most cases, the cities do not seem to have been abandoned because of conquest.^{dclclxxiv} Things often stand as they were left,^{dclclxxv} suggesting that the abandonment was a rather gradual and peaceful process. The notion that the Maya were the victims of peasant revolt is also founded on a good deal of speculation. One piece of supposed evidence consists of late classic depictions of rulers subduing people with Mayan features. The latter are wearing simple loincloths and have been assumed to be peasants. However, there is much uncertainty about this interpretation and generally there are doubts over the revolution theory.^{dclclxxvi}

Students of decline and collapse often frankly admit that the fundamental causes are really quite uncertain or even simply unknown. Concerning Britain's loss of competitiveness during the late nineteenth century, one historian notes that this extensively studied issue of economic history has produced miscellaneous explanations but no certain conclusion.^{dclclxxvii} An authority on the Mayan civilisation admits that, even though theories abound, it is really a mystery why the great Mayan centres fell and their civilisation deteriorated.^{dclclxxviii} Another describes the sudden abandonment of hundreds of cities as seemingly inexplicable.^{dclclxxix} He says that there are no convincing answers as to why three million people would desert the cities that had taken them centuries to build.^{dclclxxx} The decline of the independent central American city of Monte Alban is similarly described as unaccountable.^{dclclxxxi} An authority on North

America concedes that the collapse of the Hopewell interaction sphere around AD 400 is not well understood^{dclclxxxii} and that the decline of the Mississippian culture, 1000 years later, has also not been satisfactorily explained.^{dclclxxxiii} The archaeologist who uncovered Dilmun says that the theory attributing its decline to shifting trade routes is really only a guess, and the truth is that no one knows why Dilmun ended.^{dclclxxxiv} A writer on the Harappan civilisation says there is no certain answer to the question of what caused its decline.^{dclclxxxv} In the case of Angkor, experts agree that despite numerous ideas about its decline no firm reasons have been identified.

Not mutually exclusive

The frequent existence of multiple explanations for a single instance of decline obviously gives an impression of confusion. However, the different explanations need not be mutually exclusive. For instance, Sir Arthur Evans, original excavator of the Minoan palaces, was convinced that the evidence pointed to destruction by earthquakes and marine floods, but other scholars have argued that this civilisation was terminated by Mycenaean invaders.^{dclclxxxvi} Clearly, in an explanation of the Minoan collapse, there could be room for both of these. That is to say, the Mycenaeans might have taken advantage of the natural disaster and the resulting disruptions to impose their authority on Crete.

Similarly, at Angkor, silting of waterways became a serious problem towards the end of its history.^{dclclxxxvii} Yet military invasion by Thais and Champas has also been cited as causing the mandala's collapse. Again, both might be part of the story. Subsistence stresses, for example, may have encouraged potential invaders and weakened Angkorian resistance. Alternatively, military engagement with the Thais and Champas may have diverted effort away from maintenance of the canals and reservoirs, allowing silt to build up.

Rather than focusing narrowly on one explanation to the exclusion of others, one needs to acknowledge the multi-dimensionality of social phenomena. This is true even of something like the collapse of the Inca civilisation at the hands of the conquistadors. Initially this episode seems very straightforward. The Spaniards arrived and destroyed the Inca world. Deeper inquiry, though, reveals that the question of cause and effect is not as cut and dried as at first seems. To give just one example, the Incas had been hit by a pestilence shortly before Pizarro arrived. It is possible that this was smallpox, spreading from the north, where it had been brought by the first European invaders.^{dclclxxxviii} The epidemic might have demoralised the Inca people and thinned their army, thus helping Pizarro to succeed.

Eyewitness accounts of social decline have drawn attention to the way that several factors

reinforce each other. Early in the sixteenth century a descendant of central American royalty wrote that Teotihuacan had fallen for a combination of three reasons: religious conflict, revolt and crop failure. In recent history, Easter Island's traditional culture was seen to be obliterated by a combination of internecine strife, slave raids and European missionary activity.^{dccclxxxix} The decline of the Spanish, Dutch and British empires can all be traced to a range of factors involving both internal and external pressures.^{dccxc} During the twentieth century, it has been argued, at least three levels of causality interacted to determine the changing fortunes of nations. These comprised changes in the productive base, factors influencing the responses of each individual state to broader shifts in the world, and, lastly, diplomatic and political changes affecting each nation's chances in the great wars.^{dccxci} Decline is recognised to have depended on a complex dynamic and not just on haphazard accidents of fate.

Overall, social collapse always has numerous reasons and it is difficult to comprehend which is the leading cause, or even whether that is a valid concept.^{dccxcii} People no doubt prefer simple, readily understandable explanations, but the reality is that social change is often quite convoluted. For instance, Aryan invasion is an appealing explanation for the Harappan collapse since it involves a clear cause and effect. The considerable evidence for gradual decline in wealth and the authority of the state^{dccxciii} is less sensational and its relevance is less obvious. There is no clear image to stick in the mind. The invasion theory has therefore been more influential, but any genuine explanation must clearly deal with the question of gradual deterioration^{dccxciv} rather than exclusively with the dramatic surface events.

Similarly, the role of barbarians in destroying the western Roman empire is well implanted in the popular imagination. This is with some justification since the last days of the Roman empire were characterised by an increase in the frequency and severity of barbarian raids. Nevertheless, the more one looks into the question of the barbarian raids, the more complex the question becomes. For instance, the abandonment of the Roman province of Britain is associated with its being overrun by Saxon adventurers.^{dccxcv} Yet the obvious conclusion that Roman Britain crumbled under the pressure of a Saxon invasion turns out to be quite inadequate, given that no one knows exactly how or when the Saxons came to Britain. Pirates and raiders had certainly been a problem in Roman times, but it is far from clear that the Roman legions were actually driven out by them. On the contrary, it appears that, after the Roman withdrawal, the Saxons may have actually been invited in by the British to help protect against invaders from Scandinavia.^{dccxcvi} Only later did the

Saxons begin to fight the British and establish their own kingdoms. Thus, the Saxon role in the collapse of social order in sub-Roman Britain is highly obscure, but it certainly involved a complex range of issues and there was no simple cause and effect.

Not out of the blue

Contrary to many simple explanations, the dramatic events that are associated with social collapse do not usually come out of the blue. Instead they have a prehistory, revealing further the complexity of the mechanisms involved. The barbarians who harried the Roman empire during its decline and fall did not appear suddenly on the horizon. On the contrary, long before the Roman ascendancy, northern barbarians were already being attracted into Italy by the wealthy urban centres of Etruria.^{dccxcvii} The Etruscans experienced a series of Celtic irruptions during the late seventh and early sixth century BC.^{dccxcviii} Then, around the fifth century BC, the Celts expanded dramatically in all directions.^{dccxcix} They came to play an active and developing role in the history of Italy as a whole.^{dccc} During the first decades of the fourth century, Etruria was in trouble again, with incursions of Gauls from the north and west.^{dccc} This was about the time that the Romans were beginning to make their presence felt. Hence, the problem of barbarian attack was not a new problem unique to late imperial Rome. It had been an issue for at least a thousand years.

Furthermore, insofar as barbarian influence caused Rome to fall, this was not by some abrupt and violent invasion of undisciplined marauders. Rather it was the culmination of a long process of infiltration. It has been said that the real problem for the Roman empire was not the barbarian at the gate but the barbarian already in the city.^{dcccii} Germans had been recruited into the Roman army in such numbers that they had effectively taken it over. During the late empire, even the praetorian guard, the emperor's elite bodyguard, was dominated by Germans. Essentially on their say-so, puppet emperors were removed or installed. Even the legions' Roman eagles had been replaced by barbarian insignia.^{dccciii} It is scarcely surprising that Rome lost its ability to resist further German onslaughts.

When the Spanish Habsburg empire revealed itself to be in serious decline in the 1640s, it was as a result of causes that had been in existence for many decades.^{dccciv} Although decay may only have become obvious at a late stage, it was part of a deeper and longer standing syndrome. The same applies to the empire of the Western Chou. This dynasty showed signs of instability over a three hundred year period from 1000 BC onwards,^{dcccv} with barbarian incursions throughout. By the time that it finally collapsed, the unity of the empire was little more than a fiction anyway.^{dcccvi}

A similar point can be made even about the Spanish conquests in central and southern America. On the face of it, these appear to be sudden and unexpected. However, here too there was an existing background, which allowed these minority forces to reduce whole empires quickly and convincingly. As Cortés travelled up from the coast to challenge the Aztecs at Tenochtitlan, he found resentment and rebellion already stirring among Montezuma's subject tribes.^{dcccvi} This was to be expected given that they had known decades of paying tribute and yielding huge numbers of prisoners for the Aztecs' human sacrifices. The army that eventually marched on the Aztec capital contained a significant Indian component. The Spanish presence may have been the precipitating factor, but the uprising of the subject tribes was not really a surprise in retrospect. The Aztecs were continually having to reassert their authority and would have faced such a concerted challenge sooner or later. In the end, the Aztecs were not beaten by the military brilliance of a few Spaniards. They were worn down by hunger and disease during the course of a siege, and the besieging force consisted predominantly of their Indian neighbours.^{dcccviii} Cortés did not so much conquer the Aztec empire as precipitate its disintegration along pre-existing fault lines.

The collapse of the Inca empire can equally be linked to an inherent instability that resulted from a combination of religious and economic factors.^{dcccix} When Pizarro arrived on the scene, the empire was just concluding a five year civil war, which had itself been precipitated by an attempt to resolve these instabilities. Hence Pizarro did not have to deal with a smoothly functioning and coherent entity but rather with one that was already in a moment of crisis. As with Cortés, his intrusion acted as a catalyst for revolt among those who had cause to resent the Inca dominion.^{dcccix} Perhaps if there had been no Pizarro the empire might have passed through the crisis and resolved its intrinsic problems. However, his invasion was certainly not the sole factor in the Inca's demise, and there was a whole other context that amplified the effects of this minuscule challenge.

The inadequate response

In general, civilisations are only destroyed by such things as barbarian invaders and natural disasters when they are already predisposed to failure.^{dcccxi} It has been said, for instance, that when Alexander the Great subdued the mighty Persian empire, he only had to cut down something that was already rotten and internally sick.^{dcccxi} If the Harappan civilisation was destroyed by an invader, it was because the state had decayed to the point of neglecting its defences.^{dcccxi} The Aztecs fell to the Spanish because their empire was deeply undermined by religious and political conflicts,

which had themselves been provoked by their own rapacity.^{dcccxiv}

Inca society fell because it was already in a bad way. The civil war that preceded Pizarro's arrival indicated the existence of significant divisions. Atahualpa, an illegitimate son of the previous Inca emperor, gained support for his challenge against the incumbent, Huascar, largely because the latter had earned the enmity of many nobles. Huascar's attempted reforms of the tax system were threatening to reduce their incomes.^{dcccxv} This dispute compounded the problems of ethnic diversity and internal rebellion that had always posed a threat to the coherence of the empire.^{dcccxvi} Furthermore, the empire had grown so large that its lines of communication were seriously overextended^{dcccxvii} and its unity was very fragile. The civil war gave free play to these sources of division leaving the empire fragmented and by no means fully loyal to its new leader.^{dcccxviii} This was the sickly society that Pizarro cut down. He was able to wander about the country doing much as he pleased, and that in itself represented an extraordinary lapse of Inca security which would not have been allowed in a previous reign.^{dcccix}

As for the Roman empire, its problems went far beyond the barbarian incursions, however vicious those might have been. There were snowballing financial and social problems as the end approached.^{dcccxx} As early as the late second century AD, the city of Rome had lost much of its prestige^{dcccxxi} and it was unable to provide leadership and a focus for the empire. Historians are in strong agreement that the reasons why Rome succumbed are not to be found in accidents and external factors but within Rome itself.^{dcccxxii}

Much earlier, when the Etruscans and Phoenicians fell to the expanding Roman empire, this did not happen overnight. Rather, these peoples were gradually worn down by conflict with the Romans over a prolonged period. For instance, the Etruscan nation became steadily more feeble from the fourth to the second century BC, although fortunes ebbed and flowed. It was only when Etrurian society was exhausted and no longer viable that the Romans completed their victory.^{dcccxxiii} The Phoenicians, similarly, succumbed because they were severely weakened by the first and second Punic wars. These destroyed the Phoenician empire in Spain,^{dcccxxiv} constraining their ability to do business in western Europe. With a valuable source of revenue cut off the Phoenicians were no longer a formidable power. They stood little chance when they provoked the Romans into the decisive third Punic war.

The importance of internal weakness in the aetiology of decline is further suggested by the fact that initially vigorous societies often shrug off

challenges and disasters that are just as great as those to which they eventually succumb. The Greek city states, for example, managed to resist the sustained onslaught of Xerxes and his giant army backed by the might of the Persian empire. Yet less than a century and a half later, the seemingly much lighter challenge posed by Philip of Macedon was enough to overcome them.^{dcccxxv} In a similar fashion, the kingdom of Angkor once recovered from exactly the same kind of military disaster as the Thais eventually inflicted on it. This was in 1177, when the Chams of the Mekong delta brought their navy all the way up the Mekong river and across the Tonle Sap lake to the gates of Angkor, whereupon they sacked the city and drove the population into the surrounding countryside.^{dcccxxvi} In spite of this debacle, the royal lineage was restored by 1181 and, when the ambassador of Kublai Khan visited in 1296, Angkor was again a flourishing and famous centre of civilisation. Yet later, when the Thais repeated the devastation wrought by the Chams, Angkor never recovered.

The decline of the Spanish empire has been attributed to its exhaustion by excessive military commitments. Yet Spain was able to bear hugely expensive wars in Italy at the beginning of the sixteenth century, without losing vigour in the way that it did at the end of the century. A similar point can be made about the British empire, which is said to have been fatally weakened by the wars of the twentieth century yet had previously shrugged off the cost of the Napoleonic wars and even benefited from them.^{dcccxxvii} The catastrophe that helped to end the Minoan civilisation was not much worse than many the Minoans had previously taken in their stride. From its foundation around 2600 BC, this civilisation was hit by periodic earthquakes. However, it simply rebuilt itself after each one, and usually on an even grander scale.^{dcccxxviii} A particularly large earthquake struck Crete in the second quarter of the sixteenth century BC, yet within a few years it was flourishing as convincingly as before.^{dcccxxix} The Aztecs present a similar story. They experienced repeated crop failure from 1451 to 1456, and this must have presented a severe challenge to the social order, yet their civilisation did not collapse.^{dcccxxx} Seventy years later, though, they caved in to a seemingly much slighter threat.

For most of its history, Rome shrugged off the barbarian incursions that were a constant feature of Roman life. As early as 395 BC, Gauls swept down on Rome and ravaged the whole city except the Capitoline Hill.^{dcccxxxi} Only eight years later, exactly the same thing happened again. Yet the Romans went from strength to strength. Furthermore, Rome's rise provoked a reaction from her Italian neighbours, but the Romans managed to overcome this concerted opposition. In the last

decades of the fourth century, the Samnites and Etruscans were joining forces with the Gauls to fight Rome.^{dcccxxxii} In 285 BC, the Etruscans and Gauls again co-operated to inflict a bloody defeat on the Roman army at Arezzo. Around the same time, yet another Gallic tribe made a bold raid aimed directly at Rome, where it was repelled.^{dcccxxxiii} Between the first and second Punic wars, Rome defeated a hostile alliance of Celts at Telamon.^{dcccxxxiv} In 91 BC, there was a general uprising of Italian tribes against their Roman overlords.^{dcccxxxv} Despite being outnumbered and suffering some initial losses, Rome outclassed its enemies, defeating them convincingly by 87 BC.^{dcccxxxvi} A similar civil war of 83 to 82 BC was also put down harshly,^{dcccxxxvii} as was the Spartacus slave revolt of 72 to 71 BC.^{dcccxxxviii} Evidently, at one stage in its history, Rome was able not just to survive these considerable pressures but actually to thrive on them, growing in power and prestige. Yet at another stage in its history, when it had all the resources of a giant empire at its disposal, Rome surrendered to the barbarian invader. What had changed was not the external situation but Rome itself.

Inherent logic

When a society collapses or declines, the invasion or natural disaster that seems to have caused it is only a superficial or incidental factor. What is remarkable is not the occurrence of such a challenge. It is the failure of the society to withstand it. Generally speaking, humans can surmount most obstacles when they are determined to do so, but in decline this determination disappears. There is a loss of resilience. For example, the floods and diversions that affected the River Indus were not inevitably devastating, as the Harappans demonstrated. They spent centuries controlling and managing the river. Yet for some reason the system eventually broke down.^{dcccxxxix} Similarly, the places where states emerged in precolonial Africa exhibited considerable environmental diversity. Each had its own advantages and disadvantages.^{dcccxl} To build up thriving societies, the Africans had to adapt to and resolve many challenges of climate. If the same climates later destroyed those societies, it points to a loss of such adaptability.

Many societies have overcome considerable disadvantages to achieve prosperity and security. In the Vitiav straits of Melanesia, for instance, the wealthiest islanders are those with the least provident homeland. They voyage around the region, offering pigs where people produce sago, sago where people make pots, and pots where people breed pigs, generating a tidy profit in the process. It is therefore insufficient to say, for example, that the focus of ancient Iraqi civilisation changed due to increasing salination, or that the Maya abandoned their cities due to water stress.

The important question is why the Sumerians could not have resorted to trading with other regions, and why the Maya could not simply have occupied their cities at a lower density rather than abandon them altogether. It must be that something went wrong within these societies that left them vulnerable to such stresses.

The obvious problems that become implicated in cases of social decline are symptoms as much as causes. All people continually face all sorts of challenges. However, these only appear as real problems when the society has lost its ability to deal with such challenges. In effect, a nation collapses because it yields to pressures even when they are not inherently irresistible. There is a kind of failure of nerve and imagination. This is the message of Kipling's parable, *The Mother Hive*, in which the boy says that one cannot blame the bees because their hive is infested with wax moth. The beekeeper replies that this is to confuse correlation with causation. "Wax moth only succeed when weak bees let them in".^{dcccxli}

The failure of classical Greek civilisation has been blamed on the enervating philosophies of people like the Sophists and the erosion of commitment and noble ideals that they encouraged. Yet it has also been argued that teachings of this nature could only succeed where people were ready to receive them.^{dcccxlii} It appears that Greek society somehow became primed for failure. An intriguing illustration of this effect involves the role of pre-Columbian myth in psychologically disadvantaging the Aztecs and Incas when challenged by the Spaniards. Cortés answered to the description of Quetzalcoatl, a bearded, white-faced god and culture hero, whom the Aztecs

were expecting to return from the east. He was therefore not resisted militarily until his hostile intent had become uncompromisingly clear. The Incas also thought that Pizarro and his crew were returning gods, in accordance with their legend of Tiel Viracocha.^{dcccxlili} These factors seem purely fortuitous, yet it should be remembered that the conquest of Mexico occurred nearly thirty years after the first voyage of Columbus and that of the Inca ten years later still. By then, rumours of white men and their activities could well have filtered through to these American civilisations, perhaps giving new life to their ancient myths. The credulity with which they welcomed the Spaniards as gods is probably symptomatic of a general loss of nerve in the face of an unfamiliar enemy. It was the Aztecs' and Incas' lack of robustness in facing this challenge that is the principal cause of their downfall.

Overall, therefore, social change must be explained in terms of internal defects rather than in terms of direct, mechanical shocks. The crucial issue is not the challenge but the failure to resist it. Geological cataclysms, environmental deterioration, and barbarian invaders are the perennial backdrop of history. Societies decline not because of these factors but because they cease being able to cope and adapt. The explanation is to be found in some inherent logic and not in terms of abrupt, unexpected and insuperable shocks. Human experience is a seamless unity, and each specific trauma must be recognised as a manifestation of a general process. Implicitly, there is a logic of failure that has operated throughout history and all around the world. There is no reason to suppose that it has recently gone away.

Chapter 8 - The principle of mutual causality

Recurrent arrangements

When Hernan Cortés travelled from the coast to the Aztec capital at Tenochtitlan he passed through cities, towns, villages, markets and irrigated fields. He saw slavery, poverty, potentates, farmers, judges, churches, massive temples, roads, boats, pottery and textiles. In short he encountered a world whose almost every aspect he could understand in terms of his own experience as a sixteenth century urban Spaniard. Yet prior to Cortés's arrival, the old and new worlds had, to all intents and purposes, been out of touch for some twenty thousand years. Their convergence on the same forms seems remarkable.

To some writers, the resemblances can only be explained in terms of theories involving cultural contacts between America and ancient civilisations.^{dcccxliv} This is despite the lack of evidence for any systematic interaction and the rather decisive fact that cultural developments on either side of the Atlantic were unsynchronised by a matter of many centuries. In reality, there need be no mystery about the familiarity of central American civilisation provided one accepts that humans, encountering similar problems, are likely to settle on similar solutions. The fact that a large number of different institutions were reproduced so completely merely suggests that they belonged together in some kind of logical structure. For exactly the same reason cities in ancient times already possessed most of the basic institutions that distinguish cities today. At Harappa, for instance, there were drains, bathrooms, latrines and shops.^{dcccxlv} Urban living brings with it certain obvious challenges, and the answers to them are equally clear.

The resemblance between old and new world civilisations is just one example of a common phenomenon whereby not merely individual customs but whole arrangements of institutions recur in societies that may be widely separated in time and space. There are clear similarities, for instance, between the traditional ways of life in highland Switzerland and in the Himalayas. These involve shared details of material culture, subsistence techniques, land tenure, and political arrangements, including such specific features as late marriage, high proportion of celibacy and low birth-rate.^{dcccxlv} Yet rather than implying some Swiss-Nepalese liaison, these can simply be interpreted in terms of the logical possibilities faced by humans in adapting to such similar environments.

The main elements of culture are also surprisingly similar among the foragers of the Amazon and of Africa; Pueblo Indians and Persian villagers; the Maya of the forested Yucatan peninsula and Angkor's Khmers; the civilisations of Peru/Mexico and that of the Ethiopian plateau;

and the feudal systems of Japan and western Europe.^{dcccxlvii} Under the Chou emperors, Chinese feudalism evolved towards forms that were almost identical to those that would emerge some two thousand years later in medieval Europe.^{dcccxlviii} Later the Ch'in dynasty replaced feudalism with a bureaucratic type of government,^{dcccxlx} and this move was also subsequently paralleled in seventeenth century Europe. In America, the Mississippian and Hopewell societies resembled earlier central American societies, albeit in a watered down form. There is no evidence for migration from the Valley of Mexico into the eastern woodlands, and the differences in timing of these societies also count against any direct influence.^{dccccl} It seems that they were local inventions that just happened to be founded on similar ideas.^{dccccli}

The scattered islands of the Pacific have been described as a cultural laboratory, with numerous societies developing largely independently. Each island was probably founded by just a few colonists, who in principle would have had the freedom to devise any kind of social organisation they pleased. Yet the same basic developments unfolded consistently on numerous islands. Not only did the Polynesians reproduce the same forms over and over again but the processes by which they arrived at these forms were also remarkably similar from island to island. The initial colonists tended to differentiate into several social groups who gradually divided up the island between them. Eventually, the groups came into territorial conflict. They were then amalgamated into several large regions under strong chiefs, one of whom would be recognised as paramount. At the same time, defeated groups were likely to migrate to colonise another island and so the process began all over again.^{dccccli}

The American Plains Indians provide another example of societies falling into a common pattern of social arrangements. They started out as a whole variety of tribes who independently acquired horses from the Spanish conquistadors and then moved on to the great plains. (There were no horses in pre-Columbian America; they had evolved there but died out.) Originally, the different tribes had had a whole range of subsistence strategies – from foragers to farmers – and they had had divergent institutions to match. Yet on the plains, on horseback, they ended up forging very similar institutions from this diverse heritage.^{dccccli} There were differences of detail, reflecting their varied provenances, but overall the Plains Indians were united by broad parallelisms, resulting from the common requirements of their newly shared way of life.

The recurrence of institutional arrangements shows that human societies everywhere are

constrained by similar principles. Institutions cannot be combined arbitrarily. They must fit together in consistent ways. Furthermore, when the logic is in its favour, a given set of institutions arises quite naturally. One society does not need to copy from another. The Plains Indians did not emulate some prototype. They arrived at the same forms almost independently. In Africa, the many states that emerged across the continent shared a set of institutions based around 'divine kingship'. It used to be assumed that these ideas must have spread across the continent from the Nile. However, there is no evidence for this and it is now accepted that they can best be understood as largely indigenous developments.^{decccliv}

Institutional reinforcement

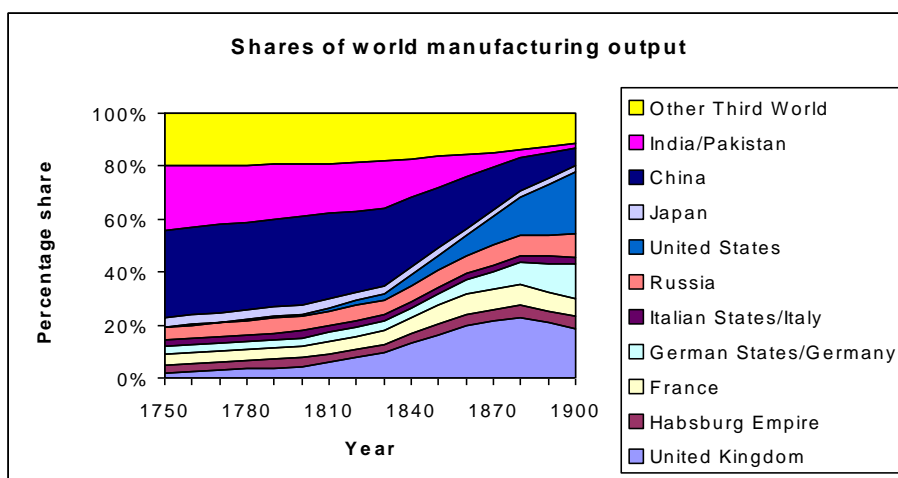
The tendency of institutions to form consistent arrangements can be related to the fact that particular institutions reinforce or promote each other. Thus, institutional complexity comprises the three different areas of: power relations, commercial activity, and moral and aesthetic sensibility. These areas are distinct and they have distinct characteristics. Yet they also interact.

For instance, a nation's moral purpose can be linked to its effectiveness as a military power. When Roman citizens shared a strong sense of loyalty to Roman values, the legions did not go short of committed soldiers. Similarly, the prosperity that comes from vigorous commercial activity makes it likely that a nation will also be strong and powerful. Wealthy nations are better able to support large and well-equipped armies with which to exert their authority. Historians connect the rise of Etruscan power, for example, to the prosperity that it derived from trading in its mineral resources. Conversely, the later crises in Etruscan power relations occurred in conjunction with commercial difficulties.^{deccclv}

It is significant that the world's first complex societies came into existence in areas of early agriculture, especially along the banks of the Nile, Tigris-Euphrates, Indus, Yangtse and Yellow rivers. Farming allowed these societies to feed themselves more efficiently and hence to become more prosperous. This in turn permitted the rise of coercive elites along with differentiation into status hierarchies. State formation in the new world followed the same path. The major city of Teotihuacan seems to have risen after the Toltecs

began to make a number of improvements in agricultural technique from about 200 BC.^{deccclvi}

The relationship between prosperity and power is well illustrated by Figure 8-1. This shows the relative shares of world manufacturing output of



different nations and regions over a 150-year period.

Figure 8-1: Relative shares of world manufacturing output, 1750-1900.^{deccclvii}

Although it strictly tells a story about commerce, this figure could just as well be a story about power relations. For instance, the massive rise in the European share of world output, relative to the third world's share, parallels the massive extension of European colonial control over third world countries. Within Europe, the relative decline of France's output and the relative rise of Germany's are also paralleled by political events. The United Kingdom's rise to the position of top producer, peaking around 1860 to 1880, echoes the fact that the British empire also reached its zenith around this time. Britain's subsequent relinquishment to the United States of the number one slot is also reflected in the world of international politics.

Hence power, prosperity and moral purpose are linked to each other. Yet they should still be recognised as distinct aspects of institutional complexity. They are correlated but they do not vary exactly in synchrony. In Figure 8-1, the trade figures only correspond to power relations in a qualitative manner. The actual point at which, say, the United States ceased to defer to Britain in the international arena is not necessarily the same as the point at which its share of output surpassed Britain's. Commercial and coercive ascendancy are certainly related, but they are not the same thing. Similarly, though heights of aesthetic achievement are often associated with the wealthiest and most powerful societies, this is not an inevitable association. The Hittites, for example, established a great empire but their literature and religion remained relatively primitive.^{deccclviii}

Mutual causality

Historians often present the linkages between different aspects of social complexity as though changes in one area effect changes in the other. That is to say, there is an implicit assumption that causality flows in one direction only. This assumption is often suspect because the direction of causality may arguably be in the reverse direction. For example, a high level of pride and loyalty may well have been important to the prowess of the Roman legions, but one can equally well assert that it was the legions' prowess that fostered pride and loyalty.

It appears obvious to some people that a society's wealth is the prime mover and that political fortunes follow financial ones. This is the essence of the historian Paul Kennedy's thesis in his study of the rise and fall of great powers. He argues that the material resources at the disposal of a great power ultimately determine its international standing. For example, Kennedy observes that the Habsburg empire was weakened by debt due to the French wars and by slow industrialisation,^{dccclix} thereby implying that economic weakness led to military weakness. However, this account of the matter still leaves questions unanswered. The supposed explanation requires explanation in its turn. One wonders, for instance, why the Habsburg empire only industrialised slowly. It is also suggestive of some pre-existing political weakness that the empire should have become embroiled in exhausting French wars. After all, really powerful nations enjoy their authority unchallenged.

The reality is that causality does not flow obviously in just one direction or the other. There are equally good reasons for believing that it flows in either direction. With the Habsburgs, for example, one can say that an original failure of authority led to wars and therefore to financial problems. These financial problems then caused further failures of authority. It seems to be a chicken-and-egg situation.

Similarly, it may be true that mineral resources or agricultural surplus can lead to prosperity and that on the basis of such prosperity powerful governments can arise. However, that can never be the whole story. It overlooks the fact that different social groups must compete for prime resources in the first place. In the pre-Columbian Mississippi, for example, or on Pacific islands, warfare appears to have been stimulated by conflict over scarce agricultural land.^{dccclx} Command over the best natural resources, which are a source of prosperity, may depend upon prior military prowess.

There may certainly have been a competition to secure the prime sites of irrigated and fertile land where civilisations first arose. Few major cities, even to this day, do not have a sizeable river flowing through the middle. In the Yucatan peninsula, where there are no reliable rivers, the

Mayan cities were tied instead to huge natural wells called cenotes. Ancient and modern societies have taken considerable interest in the sources of their water. The Incas extended political alliances beyond the coastal desert, far into the Andes, in order to protect the water supply.^{dccclxi} Implicitly, coercive control over a well-watered stretch of territory is a prerequisite for ecological stability and economic growth. Again, therefore, one cannot simply argue that powerful governments arose where there was an agricultural surplus. Effective government may have been necessary to ensure agriculture's success in the first place.

The flow of causation from political prowess to wealth is also shown by the fact that strong governments facilitate production and commerce in many ways. The arrival of Roman rule in Britain resulted in spending on roads and forts, which in itself produced a transformation of the economy.^{dccclxii} The existence of an efficient court system capable of enforcing contracts has been identified as a crucial factor underpinning the well developed Hittite economy.^{dccclxiii} This also goes for Rome and indeed every other successful civilisation. At Angkor, the rulers took an explicit interest in encouraging agriculture and trade. The Hittites particularly prospered during the relative peace that prevailed after their rulers had concluded a treaty with Egypt.^{dccclxiv} Farmers could give attention to their land rather than crippling themselves in the armies, on offensive and defensive operations. Merchants could trade freely over a large area. The government's resources were available for capital projects instead of being used up in fighting. Similarly, during the era of peace brought about by Rome, there appears to have been an increase in trade between parts of the empire, like Britain and Gaul, that might not otherwise have occurred.^{dccclxv} It has also been said that, when Britain was well governed under both Elizabeth I and Cromwell, the nation was able to remain solvent while other European states were bankrupting themselves in never-ending local conflicts.^{dccclxvi}

Governments can overcome their subjects' naturally low aspirations. Given the choice, many people would be content to produce just enough for their basic needs and so have more time for leisure. This is what occurs in institutionally simple societies, where authority is minimal or absent. For instance, the Iban are swiddening horticulturists who make a living through dry-rice farming in the forests of Sarawak. In an Iban community, the separate families are responsible for provisioning themselves, each family from its own fields. Their success is variable, due to differences in application, ability and luck. One ethnographic account of these people tells of an individual called Imba, a particularly conscientious farmer, who often made loans of rice to less diligent families

during the hungry months before the harvest was due in. When harvest-time came, Imba was able to induce his debtors to carry his rice for him into the long house.^{dccclxvii} However, Imba was not able to force his neighbours to work harder in their own fields, because he was not a chief and had no formal authority. Consequently, the overall productivity of his community remained low.

By contrast, the rulers of states do have formal authority. They make demands of people in the form of taxation and back them up with the threat of force. In this way, they can make people work harder than they otherwise would. By demanding a surplus, political authorities ensure that a surplus is produced. The Roman empire promoted the economic development of its provinces by forcing the inhabitants to produce for the market so they could pay their taxes.^{dccclxviii} European colonial powers had a similar effect in many African states. At Angkor, the peasants had to produce food in quantities well above what they needed for their subsistence.^{dccclxix} Villages of a hundred people were required to supply 13.5 tonnes of rice in taxation, which was nearly double their own requirements.^{dccclxx} Similarly, merchants had to pay a tax for a good location in the market.^{dccclxxi} These levies compelled merchants and peasants to work harder in order to survive, and so forced commercial activity on to a higher level. Equivalent observations can be made about the role of the medieval state in stimulating the development of European economies.^{dccclxxii}

Overall, therefore, while prosperity and moral conviction underpin political power, it is just as valid to say that political power underpins prosperity and moral conviction. The three aspects of ascendancy – power, prosperity and moral purpose – are inextricably coupled. It is futile to try and identify which comes before the other. Causality is in all directions simultaneously. That is to say, in generating institutional complexity these three factors are bound together by mutual causality.

Self-defeat

Strength in one set of institutions reinforces another set of institutions, which reinforces the first set. This might imply that societies should spiral ever upwards in status and institutional complexity. Yet that is obviously not the case, since societies often go into decline. Evidently, the logic can operate in reverse. Weakness in one area may promote weakness in another area. For instance, while Rome's early success stimulated a sense of civic responsibility, its later failures encouraged the rejection of Roman values and undermined allegiance to the imperial state. The virtuous circle became a vicious one.

Beyond this, it appears that the mutual influence between power, prosperity and moral purpose is not always positive. There seems to be a

self-defeating or self-limiting element to their relationship. For example, very powerful governments have often damaged their economies through the measures by which they attempt to control them. It has long been noted that the most autocratic states do not generally fare as well as somewhat less effective governments. The dirigiste regime of Louis XIV's France proved less successful than British party-based politics in advancing economic development.^{dccclxxiii} Similarly, the authoritarian Russian state made the prospects for industrial take-off more difficult there than anywhere in Europe.^{dccclxxiv}

Europe's fragmentation initially made it appear less advanced than regions like China or the Ottoman empire. In the end, however, this seeming weakness proved to be its great advantage. Since Europe was not under the dominion of a single ruler, merchants were less prey to the arbitrary whims of political authority. If conditions proved unsympathetic in one country, they could take their enterprise and their wealth elsewhere. Growth was decentralised, not driven by the state, and for that it was the more impressive.^{dccclxxv}

This does not imply that there is a straightforward correlation between political weakness and commercial growth. As has already been pointed out, strong government promotes prosperity in many ways. Furthermore, dirigisme has not always been associated with negative results. Scholars have linked the dynamism of Japan's economy and society during the two decades that followed the Meiji restoration of the mid-nineteenth century to the regime's dirigiste philosophy.^{dccclxxvi} The same point has been made about the interventionism of Japan's Ministry of International Trade and Industry in promoting the country's post-second world war success. The broader conclusion, therefore, is that the various dimensions of institutional complexity influence each other in a relatively complex way, and their interaction is neither exclusively positive nor exclusively negative. Institutions generally reinforce each other, but there is also a self-limiting element. Some aspects of strong government (peace and stability) may be good for commerce but others (bureaucratic interference) are bad for it.

In the same way, strong bonds of loyalty and civic responsibility can be detrimental to economic development. The incentive of self-interest is necessary for a vital economy. In communist Russia, for example, the share of production devoted to private, self-interested consumption was driven down to approximately 50 percent under Stalin, compared with 80 percent in other industrialising countries.^{dccclxxvii} This was just an extreme version of the collectivism that had a long pedigree in Russia, where owner-producers were rare even in pre-communist times. The result was a lack of vitality and responsiveness, with both

quality and productivity lagging behind Russia's competitors. Neither coercion nor moral pressure proved effective at stimulating people to work harder. However, collective farm workers were permitted to retain a private plot for family cultivation. At one point, these private plots occupied only about 3 percent of all Russian cultivated land. Yet they produced almost half of all vegetables consumed, almost half of all milk and meat, three quarters of all eggs, and two thirds of all potatoes.^{dccclxxviii} It is obvious where the peasants' time and energy was being spent, and it was not on the collective farm. A certain amount of selfishness and disloyalty was evidently vital to the country's economic viability.

Similarly, in China, after the farms were collectivised into huge communes, and farmers were paid for the time they spent in the field no matter how little they accomplished, the result was an agricultural disaster. Between 1959 and 1962, some 30 million people died in perhaps the world's worst ever famine. The policy was subsequently changed to give farmers more autonomy and to tie their rewards more closely to their own efforts.^{dccclxxix} Nevertheless, China is still marked by a widespread policy of redistributing land on a regular basis. This is not simply perverse, dogmatic communism. It reflects a strong community spirit. The authorities adjust farm boundaries as families change size or when someone dies or moves away. This means, in principle, that each family always has a fair allotment according to its needs, something that might be thought morally commendable. All the same, the resulting insecurity, as farmers soon point out, means that they have little incentive to make improvements with pay-back periods longer than a year.^{dccclxxx} That is clearly detrimental to long term growth.

This should not be taken as an absolute commendation of unbridled selfishness in economic activity. The point is more that moral responsibility, which often makes for a strong society, also has its self-defeating aspects. In fact, some highly successful societies have practised collectivism. The Incas, for example, had a form of land management like that of modern China. Each family belonged to an *ayllu*, or collective, which was responsible for allocating land between its members in accordance with their perceived needs.^{dccclxxxi} There was no security of land tenure and no incentive to make long term improvements. Government control of the economy, though, was taken very seriously. If a citizen stole through want, the responsible official could be punished for the failures of administration that led to the crime.^{dccclxxxii} The Maya are also thought to have practised such an approach to allocation of land rights.^{dccclxxxiii} Overall, therefore, the temptation to settle on simple causal logics, based on a few illustrative cases, should always be avoided. The

mutual influence of different institutions is complex and involves both negative and positive strands.

International interaction

Since the beginning of recorded history, the middle east has played a central role in world affairs. It is the source of numerous key innovations. The world's first states arose here, as did several of the world's great religions. Many plants and animals were originally domesticated in the general area. All this precocious achievement, it has been pointed out, may be related to the region's geography. It is a place where three continents meet. Societies here were exposed to a flow of ideas and materials from many different directions. They were invigorated by this intensive interaction. Such a hypothesis is strengthened by the case of America. There too, it was largely in the centre, where two continents meet, that states arose and significant innovations were made.^{dccclxxxiv}

While there may be other reasons why particular developments took place in the middle east or in central America, it seems clear enough that interaction with neighbours can exert a positive influence on a society's development. The interaction takes the form of both co-operation and competition. On the co-operation side, trade brings access to numerous exotic products and concepts that can be recombined in exciting ways. Competition, meanwhile, implies an incentive to ever higher achievement. During the last millennium of European history, the rivalry between individual states stimulated many advances in military technology and contributory industries.^{dccclxxxv} Warfare also helped to crystallise the incipient self-consciousness of different nations and promoted their coalescence around strong institutions.^{dccclxxxvi}

On the other hand, the interaction between nations has self-defeating aspects, just like the interaction between different institutions within a society. For instance, while trade and cultural exchanges can invigorate a society, they can also become harmful when the society has lost its original confidence. The society may simply imitate others, abandoning the very institutions that formerly held it together. The benefits of competition are also self-limiting in various respects, particularly when such rivalry degenerates into all-out war. The Assyrian empire, for example, seems to have exhausted itself in the effort to subdue Babylon, which never allowed itself to be wholly bent.^{dccclxxxvii} Defeat in the second Punic war was followed by a progressive decline of the Greek cities in southern Italy.^{dccclxxxviii} The Toltec people were also weakened by long struggles against their enemies,^{dccclxxxix} as was the Ethiopian state.^{dccclxc}

The Etruscans present a clear example of a people who were progressively debilitated through

military conflict. Their development stalled as a consequence of two events. Firstly, the Phoenicians barred the way to Etruscan colonial expeditions beyond the Pillars of Hercules. Secondly, the Greeks established a colony on the Aeolian Islands protecting Sicily and the Strait of Messina. From the sixth century BC onwards, the Etruscans launched repeated attacks on the Greek strongpoint but failed each time.^{dcccxcxi} During the fifth century something of a balance was struck between the Greek and Etruscan cities and those of the Phoenicians, implying an impasse for all. However, the Etruscans found their freedom of strategic and naval action increasingly curbed by the Phoenicians.^{dcccxcii} Not only had their outward movement been halted but now the restraints were being tightened. Thus, Etruscan history was characterised by unsuccessful struggles against Carthage, Sicily and the Greeks.^{dcccxciii} These military frustrations contributed to the crumbling of Etruscan society.

The wars of the superpowers have frequently assisted minor powers that remain on the periphery and do not get involved. In the eighteenth century, Britain gained relative economic benefits from the chronic in-fighting of the continental European powers. Later, the first world war seriously eroded the prosperity of the European powers, but just as surely boosted the economies of the United States and Japan.^{dcccxciv} This war has been described as a self-inflicted death blow to European civilisation. Most states funded their militaries by borrowing, and were left with huge debts and soaring inflation.^{dcccxcv} At the end of the war, world manufacturing production turned sharply down, ending many decades of growth.^{dcccxcvi} Britain, in particular, was harshly alerted to the reality of its limitations. It had entered the war as the world's pre-eminent power, coming to the aid of the French. It ended the war having become dependent on the new American power.^{dcccxcvii} As for Russia, it was left prostrated both by the war and by the effects of the 1917 revolution. In 1920, Russia's manufacturing output was just 13 percent of what it had been in 1913.^{dcccxcviii} The United States gained a further relative advantage by staying out of the second world war until a late stage.^{dcccxcix}

Another self-limiting aspect of the competition between nations is illustrated by the chronic trials of the Habsburgs, whose very success ensured that they were repeatedly challenged by rivals. The Habsburg emperor, Charles V, had foes among the French and Ottoman Turks, as well as difficulties in Germany.^{cm} During some periods, the Spanish Habsburgs were fighting on three fronts simultaneously.^{cmi} Afraid of the disadvantage they might suffer if the Netherlands fell into the hands of their enemies, they fought a long and eventually unwinnable war of attrition to retain it.^{cmii} In the concurrent thirty years war of 1618 to 1648, the

Habsburgs fought against all-comers arranged in successive coalitions. Even after 1648, the Spanish end of the empire went on to battle it out with the French for another eleven years, until the Treaty of the Pyrenees.^{cmiii} It also continued to exhaust itself in a futile attempt to recover Portugal.^{cmiv} Meanwhile in south-eastern Europe, the Habsburgs struggled with the Ottomans for decade after decade. All these long drawn out wars became increasingly expensive and difficult to maintain.^{cmv} The resources of the Spanish-Austrian empire were vast but they were still never enough to meet the spiralling costs of war that was being conducted on too many fronts.^{cmvi}

Sometimes, more isolated nations can fare better than those which are at an international crossroads. For example, Easter Island was a typical Polynesian society in terms of its language, artefacts and main social institutions.^{cmvii} Yet, with its writing and impressive statues, Easter Island seems to have exceeded the level of cultural development typical for Polynesian islands of its size.^{cmviii} This may be connected to its extreme isolation, three thousand miles from the nearest inhabited land, freeing it from the endemic fighting that characterised most Polynesian island groups.^{cmix} Similarly, it has been argued that Britain's success during the eighteenth and nineteenth centuries stemmed from its island location. It was neither forced to defend itself by land nor tempted to seek extension of its boundaries. It therefore grew strong at the same time that continental countries were dissipating their energy and resources in ultimately futile conflicts.^{cmx}

Interaction on the international stage is therefore a crucial influence on the development of any society.^{cmxi} However, there is again no simple mechanism of causation. In many ways, interaction is positive and acts as a stimulus, but there is no monotonic spiral of improvement because of the presence of more negative processes. Furthermore, one thing leads to another, which then leads back again, and it is impossible to tease out the starting point of any particular sequence of events.

Simultaneity in social change

A nation's prosperity is vital to its coercive power. Its coercive power is also vital to its prosperity. There is no unique direction of causality. Each stimulates the other. Each is a prerequisite for the other. Conversely, decline in one aspect may be expected to be associated with decline in the other aspect. It is very difficult to say that one declined before the other, or to say that one was the cause and the other effect. Combine this with the notion that failure only occurs when a society is already internally weakened, and it becomes clear that collapse or retrenchment is not to be explained primarily in terms of some unusual circumstance and prime mover. Instead, it must

involve the same principles, with their partially self-defeating logic, that govern the relationships between institutions every day.

Problems will arise in explaining social decline if the principle of mutual causality is overlooked, and if external stimuli are given more importance than the internal relationships that apply all the time. This is why different analysts arrive at different explanations. This is also why the process seems invariably to be multi-causal and it is difficult to distinguish between primary causes, secondary causes and mere consequences of the decline. In effect, the whole notion of cause and effect is inadequate and unhelpful in application to social phenomena.

In sub-Roman Britain, for instance, the collapse of the money economy, the insecurity of road transport, the decline in mass manufactures, and the increase in home-produced goods^{cmxii} are all related in a complex web of causation. It is one that can never be disentangled. To trace the precise sequence of events that led to the collapse of Romano-British civilisation is a hopeless task. This is just one example. Wherever societies have declined, change has taken place on many fronts simultaneously. This is because the institutions that make up a logical structure must inevitably appear or disappear together. For example, cities, markets and writing are all features of institutionally complex societies. When such societies decline, these institutions are all threatened and they tend to vanish as a piece. It is not feasible for one institution to be in severe decline while others are vigorous. In eastern North America, over the period 800 BC to AD 900, status differentiation and exchange networks emerged in parallel and they subsequently vanished in parallel.^{cmxiii}

The interdependence of institutions is shown particularly well by the way that states usually arise quite suddenly in the archaeological record. This indicates that particular institutional configurations emerge all at once in newly ascendant societies. In ancient Iraq, while there was a long process of development from the establishment of the first permanent settlements around 5500 BC, when cities finally emerged they did so remarkably swiftly.^{cmxiv} Similarly, the Egyptians had a long prehistory, but when the dynastic state appeared it did so in a burst of cultural innovation. The Shang dynasty of China appeared abruptly around 1600 BC.^{cmxv} Among the Maya, it has been impossible to trace any extended evolution from the period of scattered and independent farming up to the city-building phase. The new cultural institutions appeared suddenly and fully-formed.^{cmxvi} In Etruria, the Villanovan culture, which is presumed to have been the forerunner of Etruscan civilisation, underwent rapid and intensive growth in the eighth century BC.^{cmxvii}

Sometimes, the rapidity with which civilisations develop has been presented as a

mysterious phenomenon that demands exotic explanations up to and including intervention by extraterrestrial visitors.^{cmxviii} In fact, it is fully accounted for by the principle of mutual causality. Institutions are not simply accreted in a haphazard manner, but they must combine in a logically necessary structure. Consequently, one should not expect anything else other than that the various institutions characterising a particular way of life tend to materialise in one rapid development.

It might be argued that what seems like an abrupt change may be due simply to gaps in the archaeological record. This is certainly conceivable. However, even where the history is known in some detail, the rise of states and empires seems to be rather swift. Rome, for instance, rose to prominence with incredible speed during the last decades of the fourth century BC.^{cmxix} The Hittites went from being a local and insignificant domain to an inchoate empire within the reign of a single king.^{cmxx} The later flowering of the full Hittite empire was also achieved largely in the reign of a single king, Suppiluliamas. He not only brought large amounts of territory under his control but also established the mechanisms to administer it.^{cmxxi}

The unravelling of Yir Yoront society, after missionaries began introducing steel axes to these Australian aborigines, demonstrates the principle of institutional interdependence from another direction. What might have seemed a simple and uncontentious change, from stone to steel, produced devastating results. This was because stone axes occupied a well-defined place in Yir Yoront culture. Their manufacture required knowledge and skills that young men had to learn from their elders and that were not considered appropriate for women.^{cmxxii} As an institution, therefore, the stone axe tended to generalise and standardise sex, age and kinship roles, and built up expectancies about conduct.^{cmxxiii} There was a definite morality of the axe, representing the precedence of male over female and old over young. The stone axe fitted in with the whole Yir Yoront world view.^{cmxxiv} When the missionaries began handing out steel axes indiscriminately, women and young people were no longer dependent on older male expertise. This struck at the very logic of the Yir Yoront way of life, and proved to be a blow from which it was unable to recover.

Having said this, the story of the Yir Yoront should be regarded as something of a parable and not the literal truth. It makes the point clearly, but the ethnographic classic on which this account is based greatly compresses other important issues. For instance, the Yir Yoront were receiving many other trade goods and were being converted to an alien ideology. Thus, the stone axe stands in for a more complex set of factors. Nevertheless, the basic point remains valid. A society's institutions

form a coherent whole. They cannot be either accumulated or discarded in piecemeal fashion. Colonial administrations in Africa at the start of the twentieth century often received little assistance from their parent governments and had to pull themselves up by their own bootstraps. This proved to be no easy task as they found that they could not extract taxes until they had pacified the region enough to allow trade to develop, but without an adequate fiscal revenue stream they did not have

the resources to achieve pacification in the first place. They could not progress bit by bit but had to get everything in place simultaneously in order to create a viable state.^{cmxxxv} In accounting for decline therefore, or any social change, it is much more fruitful to consider the dependencies between a society's institutions, both self-promoting and self-defeating, than to think in terms of sequential causes and effects.

Chapter 9 - The camel's back

Dynamism and stagnation

Throughout history, an expanding population has been a clear-cut sign of a vigorous and dynamic society. This may seem surprising to those who have been encouraged to believe that the world's recent population explosion is an international calamity. Nevertheless, a growing society is one that is becoming more proficient at meeting human needs and usually one that has an exciting future before it. In Britain, the arrival of Roman civilisation sparked off a massive increase in the numbers of the local tribespeople.^{cmxxvi} In China, the population grew strongly in the time leading up to its first unification in 221 BC. The neolithic revolution, about ten thousand years ago, saw a world-wide spurt of population as farming provided humans with a more assured and more abundant food supply.

It is a popular misconception that a rapidly growing population is a characteristic feature of poor and backward societies, and that it needs to be solved by technical interventions. Control of population size is neither a recent human achievement nor one that is related to advanced contraceptive technology. It is an ancient habit, relying on such practices as coitus interruptus, long nursing periods (which limit female fertility), and infanticide. Egyptian texts speak of a variety of contraceptive methods in use from at least 1900 BC. Foraging peoples, whose societies are the simplest and poorest of all, have typically kept their numbers stable, and well within the limits imposed by their environments, for thousands of years. Among the Mbuti pygmies of the Congolese forest, for example, Colin Turnbull (who also studied the Ik), noted that he never saw an unmarried girl become pregnant, despite the fact that they all led active sex lives.^{cmxxvii}

The reason that foragers like the Mbuti live in tiny groups is because larger ones would quickly exhaust the hunting and gathering potential of the locality and would have to move on unreasonably often. On the other hand, their small size means that their institutions are inevitably simple and so they can only live in such a basic manner. The principle of mutual causality applies. New institutions that improve subsistence can be said to allow population growth. However, it can also be said that population growth allows – and simultaneously demands – those new institutions. Complex institutions and an expanded population go hand in hand. It is pointless to argue about which comes first.

A stable population is associated with a society that is stagnating. After the Augustan age, when the Roman empire began to lose its momentum in every area, the population of the Italian peninsula stopped growing, and from about AD 200 it actually began to decline.^{cmxxviii} Similarly, Japan's

population stagnated during its period of almost complete isolation from about 1700 until the mid-nineteenth century. In the course of this period, the standard of living improved but the society was not vigorous and there were few innovations. On the other hand, after the Meiji restoration, when Japan began to develop dramatically, the population soared.^{cmxxix} The population of China, meanwhile, stopped growing during the last decades of the Han empire and, after its collapse in AD 221, remained stagnant until the arrival of the dynamic Sung dynasty around AD 1000. The Egyptian population also declined during the late period of pharaonic civilisation.^{cmxxx}

Population stagnation occurs before decline rather than as an aspect of it. It is characteristic of societies that have attained their potential. They may appear to be doing well, and often have great power and wealth, but progress has stalled. Actual collapse can often involve a population crash. The loss of institutional complexity means that former population levels are no longer supportable. Following the sack of Rome early in the fifth century, the Italian population decline became precipitous and reached its nadir by the beginning of the seventh century.^{cmxxxi} The period 1350-1450, when Europe's population declined dramatically due to the ravages of the black death and the hundred years war, was also a time of declining vitality on every front.^{cmxxxii}

A stagnating population is an ageing one. People have fewer children and there is a higher ratio of older people in the population. A text called the Admonitions of Ipuwer, which dates from the collapse of the Egyptian old kingdom, laments the fact that 'men are few' while 'women are barren and there is no conception'.^{cmxxxiii} In late Rome, meanwhile, some contemporaries deplored the proliferation of childless monks and nuns. The practice of celibacy was spreading even to devout people in secular occupations and exacerbated an already drastic fall in the birth rate.^{cmxxxiv}

While its own population may be static, a mature and successful society can grow by attracting immigrants from less ascendant lands. The Admonitions of Ipuwer refer to the fact that foreigners had arrived in such numbers that they seemed to be swamping the Egyptians in their own country.^{cmxxxv} Similarly, Rome received huge influxes of people from all over the empire, especially German barbarians. Such migrants are usually younger people anyway, and they tend to have a higher birth rate than the host population. Migration can therefore mask the effects of an ageing population and can inject a degree of vigour into an otherwise stagnating society. However, this is only a temporary reprieve. The stagnant society eventually becomes disrupted by this forceful, foreign presence in its own midst and is overtaken

by those societies whose populations are still expanding and where ambition remains strong. The Germans who came to Rome, to serve and to learn, finally destroyed it and all its ways.

Resistance to change

The institutions of institutionally complex societies tend to become self-perpetuating and hence resistant to change. Circumstances move on, but the institutions do not. They lose flexibility and inhibit needed developments. Bureaucracies, for example, gain a momentum of their own. Their activity is increasingly devoted to justifying their own existence, rather than responding to society's actual needs.

Powerful governments can provide significant benefits to their societies, imposing law and order, and regulating trade. They foster the use of money, which facilitates economic activity and allows the development of more elaborate financial practices. They establish standards for weights and measures. The Ch'in dynasty that first unified China even concerned itself with the gauges of chariots.^{cmxxxvi} Such regulation is convenient for merchants and a protection for the general public. It encourages trust and so aids commerce. The problem is, however, that regulation and standardisation can become a habit and an end in its own right. The authorities become overly prescriptive. Diversity is treated as anathema. Original thinking is suppressed.

A consequence of this is that ascendant societies become suspicious of dramatic innovations. Their very elaboration and complexity renders them brittle. Adjustment is difficult and there is too much to lose. The Chinese Ming dynasty, which came to power in the fourteenth century, was hostile to all mechanical contrivances and opposed their spread. One emperor demolished an astronomical clock that had been built in 1090.^{cmxxxvii} The dynasty's early period saw ambitious voyaging by the Chinese merchant navy. Chinese ships visited Mecca and even brought back a giraffe from east Africa.^{cmxxxviii} Yet by 1430, the emperor forbade any further voyaging and prohibited overseas trade, declaring it to be frivolous. His decree was obeyed absolutely and the Chinese fleet was destroyed. In this way, the Ming denied themselves the lucrative opportunities that fell instead to Europeans, after the Portuguese rounded the Cape of Good Hope half a century later and irrupted into the Indian Ocean.

The Mogul empire of India also stifled all innovation. It was its excessive rigidity and traditionalism that prevented this society from emulating the great technological and cultural strides that were being made in contemporary Europe.^{cmxxxix} Russia also lagged far behind the rest of Europe in the nineteenth century because of its inflexible social institutions. Tsarist absolutism, the practice of serfdom, and a corrupt, backward-thinking bureaucracy all proved effective

at suppressing talent and maintaining tradition.^{cmxli} In the sixteenth century, Britain began to succeed in the cloth trade primarily because the powerful Italian and Spanish guilds, which had hitherto dominated it, banned the techniques for making the 'new draperies', i.e. lighter and finer cloth that was more in demand.^{cmxlii}

It is not that ascendant societies are particularly unusual in their dislike of change. Anti-development sentiment seems to be a hardy perennial of history. The point is rather that highly ascendant societies are more successful at curbing unwanted developments. Ironically, their very effectiveness allows them to undermine their own further progress. For example, the pope banned all trade with Muslims – very much like the Chinese and Japanese decisions to close their borders to trade – only he was ignored. Similarly, the invention of the printing press meant an explosion in the number of books in Europe. The biggest demand was for secular books. These played a major role in the spread of learning and of agricultural and technological improvements. Such free exchange of information seemed to be threatening to the social order and attempts at censorship were prevalent. However, European rulers were too feeble to achieve what they would have liked. By contrast, the more powerful Ottoman emperors succeeded in banning the printing press for long periods of time. This huge own goal ensured that the Ottoman population remained ignorant and backward, and so it fell convincingly behind Europe in technical accomplishment.

Europe actually benefited from having lagged behind in the achievement of stable superstates with effective governments. The English parliament banned gig-mills, which were used in the cloth-finishing trade, but people went on and built them anyway. In 1589, a parson named William Lee invented a stocking frame for hosiery and other knitwear that was ten times as fast as a skilled hand-knitter. Fearing unemployment, the authorities refused Lee a patent, and his first machines were destroyed by mobs of hand-knitters. However, Lee went to France and set up a factory there. The factory eventually failed but the stocking-frame continued to spread.^{cmxliii}

Charles I in 1623 ordered the destruction of a needle-making machine, and banned the casting of brass buckles on the ground that six casters would endanger the livelihoods of six hundred guildsmen who were making buckles the old way.^{cmxliv} Charles was later executed. Another invention, the Dutch swivel-loom for weaving multiple ribbons simultaneously, was prohibited in England in 1638, but also spread anyway.^{cmxlv} (The inventor of a similar machine had been suffocated 50 years earlier in Gdansk.) An English pamphleteer, describing himself as a 'Lover of his Country and

Well-Wisher to the Prosperity of the King and the Kingdoms', attacked the stage coaches that were established on many routes after the Restoration. He condemned them as destructive to horsemanship, encouraging effeminacy, and undermining both the social and the economic order.^{cmxlv} Evidently, if the English authorities had only commanded the same absolute obedience as the Chinese or Ottoman emperors, the industrial revolution would have had to find another venue.

The erosion of advantage

Ironically, at the very time that their institutions are becoming less flexible, successful societies find themselves increasingly stretched. They cannot rest on their past achievements because their initial advantages inevitably become dissipated. Indeed, the rewards go to the late-starters. It can be better to follow the paths that other societies have pioneered, enjoying the fruits of their inventiveness and avoiding their mistakes. Britain and France benefited by exploiting opportunities in the new world that had been opened up by Spain and Portugal. They saved themselves the effort and expenditure of the initial discovery and simply stepped in to pick up the spoils.^{cmxlvi} The pioneers tend to lose their edge over the people that they dominate, as the latter acquire their technical secrets and institutional principles.

The Romans, for example, allowed northern barbarians to obtain their military technology. In this way, they gave away their lead over their potential enemies. The Romans were going down the same path as Troy and the early cities of Greece and Crete, which traded bronze implements to the less civilised tribes that later overwhelmed them.^{cmxlvii} In fact, the Romans had themselves benefited by learning the techniques of the more advanced civilisations that they eventually conquered. Their civilisation inherited its potency from the Etruscans and from other societies of the Mediterranean.^{cmxlviii} In a similar way, European and American civilisation now dominates north Africa, south-west Asia and China. Yet it is founded on cultural and technological innovations that were made hundreds or thousands of years ago in those very places.

Commercial advantages have a tendency to leak away in line with military ones. The Etruscan mineral trade suffered as the peoples of other areas, through contact with Etruscan merchants, gradually acquired the motivation and skills to open their own mines.^{cmxlix} In a similar way, mid-Victorian Britain undercut its own position by carrying its trade to the rest of the world. In spending its wealth on foreign goods of all kinds, and investing its surplus capital in overseas industries, Britain only stimulated the growth of potential rivals.^{cm} Some contemporary observers remained rather sanguine about this. They suggested that Britain had got so

far ahead of anyone else that it would always remain the foremost beneficiary of a world-wide economic miracle. However, that calculation proved to be quite mistaken. It was nowhere near as difficult for other nations to catch up and overtake Britain as had been so fondly supposed.

Their very superiority ensures that ascendant societies attract challengers and would-be emulators. For example, French successes and French ambitions made other nations determined to stop them after 1815.^{cmli} Similarly, as European colonialism penetrated underdeveloped societies and drew them into the global network, it created its own difficulties. The leaders of these subjugated societies acquired an education in European political and technological methods. People whom the Europeans had once effortlessly dominated gained aspirations that they had never had before, along with the capacity to realise them. Not surprisingly, they slipped increasingly away from European control.^{cmlii} The difficulty of ascending to a dominant position may become as nothing compared to the difficulty of holding on to it year after year, decade after decade. One challenger may be beaten off only for another to appear in its place. The need to maintain continual vigilance, not to mention embroilment in chronic defensive operations, will absorb resources and steadily debilitate even the greatest nations.

Overextension

The Athenians found that to maintain their desired lifestyle, they had to become slave-owners and exploit their Aegean allies. As a result, they lost their dignified isolation and acquired military obligations.^{cmliii} Ascendant nations are likely to be sucked into ever greater commitments to protect their interests. At the beginning of the nineteenth century, Britain had one of the largest economies in the world, but this was not reflected in fighting power. Military expenditure represented only 2 to 3 percent of GNP, less than any continental nation.^{cmliiv} In the Crimean war of 1853-6, the French expeditionary force was by far the largest and made the most breakthroughs.^{cmli v} Britain's poor performance in the Crimea, which saw the suicidal Charge of the Light Brigade as well as large losses from disease, was a national scandal. The response was to allocate vast sums to the military to make up for past neglect.^{cmli vi} By 1900, the Royal Navy was equal in power to the next two navies combined,^{cmli vii} and defence had become a major government activity and expense. Similarly, in 1938, the national income of the United States was about three times that of Britain,^{cmli viii} but its military was far smaller. However, in that year, congress passed the Navy Second to None Act, which provided for a massive build-up of the fleet.^{cmli ix} Ever since then, United States investment in the military has been at a phenomenally high

level and it has steadily accumulated military commitments around the globe.

Powerful nations can overreach themselves when they absorb so large and diverse a population that it requires an impossible internal policing operation to control it. Their elongated frontiers come to border on too many neighbours and their defence requires an equally impossible commitment. The Inca empire had become dangerously extended well before the Spanish conquest, and was reaching the natural limit of its power of assimilation.^{cmlix} By the sixteenth century, the Ottoman empire was similarly showing signs that its territories had grown too large for it to govern them convincingly.^{cmlixi} At the start of the twentieth century, Britain was in this position. The Royal Navy that once seemed so invincible could no longer be strong everywhere. The British empire had simply acquired too many borders to defend.^{cmlixi} It could not control European waters and simultaneously maintain a decisive presence in the Indian Ocean.^{cmlixi} At the outbreak of the second world war, Britain was attempting to control 25 percent of the globe with only 10 percent of the world's manufacturing strength and war potential.^{cmlixiv}

Soft living

Successful societies live well. They are wealthy and they develop a taste for luxury. Ordinary people aspire to the standard of living that their betters have customarily enjoyed. The Admonitions of Ipuwer observe that 'paupers now possess fine things',^{cmlixv} while 'she who had no box, now has a coffer' and 'he that slept on a board, now has a bed'.^{cmlixvi} The rich citizens of classical Athens became increasingly given to conspicuous consumption, and built themselves far more splendid houses than those with which their ancestors had been content.^{cmlixvii} In the first century AD, Seneca commented wryly on the rather dingy and basic bathroom of a house that once belonged to Scipio, the destroyer of Carthage some 200 years before. 'Who is there who could bear to have a bath in such surroundings nowadays?', he asked. 'We think ourselves poorly off if the walls are not ablaze with large and costly circular mirrors, if our Alexandrian marbles are not decorated with panels of Numidian marble' and if the water does not pour 'from silver taps', all of which excesses, Seneca said, are 'just for the sake of spending money'.^{cmlixviii}

Of course, there is nothing wrong with a more comfortable lifestyle in itself. The trouble is that a society may indulge itself beyond what it can afford. Xerxes is said to have ruined the Persian empire by indulging in a welter of extravagance that was more than his coffers could bear.^{cmlixix} In China at the beginning of the seventeenth century, aristocrats were creating great private domains that drove peasants away from the land.^{cmlixix} They were

seemingly oblivious to the fact that all their wealth ultimately rested on the land's productive value, and that only industrious peasants could realise it.

People in rich nations develop a growing distaste for hard labour. They wish to enjoy their wealth rather than continue the hard struggle that led to its accumulation. The Admonitions of Ipuwer complain about the fact that craftspeople no longer cared to toil.^{cmlixxi} The Romans once derided the Greeks for their softness, yet they themselves became increasingly pampered by a state that provided all sorts of amenities. Late Rome was equipped with eleven public baths through the generosity of successive emperors. These not only provided for luxurious bathing at various temperatures but also served as elaborate leisure centres, in which many people, belonging to a wide spectrum of social and economic classes, spent a substantial part of each day.^{cmlixxii} The desire for luxury was rising, but the inclination to work for it was lagging behind. A book published in 1900 similarly noted how lazy British workers had become in comparison to their German and American counterparts. They were eager to consume but reluctant to work and resistant to innovation.^{cmlixxiii}

This kind of runaway growth in expenditure, undermined by more sluggish growth in income, played a part in the decline of ancient Etruria. There was a shift in emphasis from production to consumption, i.e. to a society with more consumers and fewer producers. The Etruscan taste for fine things seems to have outrun the purchasing power of the people's earnings and accumulated wealth.^{cmlixxiv} That is to say, the Etruscan taste for consumption outran the Etruscan taste for the effort and self-discipline needed to supply it.

The later Roman armies even gave up wearing armour on the ground that it was too heavy. The Romans' upbringing no longer prepared them for strenuous effort. Their authority as well as their commerce was at risk. For a while, they could live in idleness on the taxes that they collected from their provinces. However, the provinces eventually realised that the all-conquering Romans had become soft and ineffectual, and they withdrew their support. The Romans had come to rely on the credit and reputation that had been built up by their forebears. That credit and reputation eventually ran out.

Burdens of complexity

Taxation implies both costs and benefits. As time goes on, though, the costs become increasingly likely to outweigh the benefits. The thirst for revenues is more consistent than the provision of good governance. During the eighteenth century, the French authorities imposed a huge tax burden on the wealthy port of La Rochelle, but neglected to defend it with the military forces that these taxes funded. In

consequence, La Rochelle's merchant shipping suffered at the hands of the British navy, and its wealth-producing potential was eventually destroyed.^{cmlxxxv} Spain espoused numerous counterproductive policies that created a straitjacket for Spanish entrepreneurs. Internal customs barriers discouraged trade, inhibited capital accumulation and generally kept industry in a backward state. In this way, the government short-sightedly attacked the basis of its own prosperity.^{cmlxxxvi}

The rulers of the Mogul empire touched some of the heights of excess in this field. They extracted vast wealth from their subjects and used it almost entirely for their own conspicuous consumption. They provided no direct benefits to their population and entirely neglected the welfare of the system on which they relied so heavily.^{cmlxxxvii} In the end, through impoverishing and disincentivising their subjects, they destroyed their viability. People stopped even maintaining their homes properly because the state would confiscate any genuinely desirable residence. In China, extremely heavy taxation at the beginning of the seventeenth century was similarly associated with a great deterioration in the position of the government.^{cmlxxxviii} The collapses of both the Mayan and Mycenaean civilisations have been explained in terms of exorbitant tax demands.^{cmlxxxix} It has been suggested that the same model may also apply to Angkor.^{cmlxxx} Here, Jayavarman VII raised the tax burden to fund an ambitious building programme exceeding that of any earlier period. After his reign, the Angkorian mandala was essentially in decline. It seems that he may have gone beyond what the villages could withstand.^{cmlxxxi}

Excessive taxation was certainly an important factor in the decline of Rome. In the later stages of the empire, the middle classes were being destroyed by tax demands that they could not sustain.^{cmlxxxii} The curiales, or municipal officers, suffered enormously from their hereditary position as tax collectors. They were obliged to produce a certain fixed amount of revenue from the areas that were assigned to them, although generally they found great difficulty in meeting the demands. In most cases, they could only escape by taking flight.^{cmlxxxiii} The growth of taxation had become self-sustaining, as the bureaucracy consumed vast amounts just on maintaining itself. The vast size and deteriorating quality of the civil service in the late Roman empire was notorious. It had become a self-perpetuating body in which posts were hereditary. There were many concerted attempts to rein in this unmanageable officialdom but the very repetitiousness of such measures shows that they must have been almost wholly ineffective.^{cmlxxxiv} Frauds and extortion weighed so heavily on taxpayers that broad areas which had once been productive were taken out of cultivation.^{cmlxxxv} It

simply became no longer worthwhile to raise crops because too much was taken away by the state, whether legitimately or corruptly. By the fifth century, the peasants were paying one third of their gross product in taxes (comparable to contemporary rates). In north Africa, the burden was felt so severely that many cultivators simply gave up and fled.

Parasites

Successful but stagnating societies are susceptible to parasites. There is an ever-growing class of people who extract benefit from their society without making any contribution to it. In classical Greece, freeborn people came to subsist on the fees that they were entitled to receive for attending tribunals.^{cmlxxxvi} Certainly, these fees did not provide much of a living. However, the people who lived this way did no productive work and made no contribution to their society. They were exclusively a drain on it. These ancient Greek free-loaders demonstrated that when a privilege has been granted people are apt to take advantage of it.

The Romans of 300 BC may have held in contempt the grasping and self-indulgent Greeks that they conquered, but their descendants would eventually far outdo the Greeks as spongers and scroungers. By AD 300, Rome had become an enormous parasite on its empire. Large numbers of minor citizens subsisted at the expense of the public purse, enjoying freely distributed bread and being entertained by the public circuses. The aristocrats lived on the income from their estates. Only the slaves and freedmen did a little work.^{cmlxxxvii}

The free distributions had a history that went back to the Roman republic. In those days, citizens were guaranteed adequate corn at a fair price, the costs being subsidised if necessary. In 58 BC, however, in the context of the civil wars, this became converted into a free distribution of corn for citizens resident in Rome. In response, people moved into the city and slave-owners freed their slaves in order to claim their share. By 46 BC, there were 320,000 people claiming the corn dole. Julius Caesar cut the list of those who were entitled down to 150,000 names, with new names being entered only on the death of an existing recipient. However, Augustus abandoned the attempt to limit the list. By 5 BC, the numbers had crept back up to 320,000 and were continuing to grow. Around AD 200, the scope of the dole was extended to include oil, and by the late third century pork was added. In AD 200, there were 1.75 million people entitled to the dole. As can be imagined, the list was subject to massive fraud, with the number of claimants exceeding Rome's actual population. The burden of the dole helped motivate the emperor Constantine to move his capital to the east in AD 330, leaving Rome to destroy itself by its own avarice.

In a similar way, the Incas created a class of privileged people who were entitled to live at the expense of the general community. This derived from the system of split inheritance, which was associated with ancestor worship and the practice of preserving the mummies of dead emperors.^{cmLxxxviii} In this system, the Inca's principal heir inherited his titles and duties but not his property. Notionally, that continued to belong to the dead emperor. In practice, all the dead Inca's other descendants in the male line, collectively known as the *panaqa*, were entrusted with the property and received an allowance from it.^{cmLxxxix} As each Inca acquired his own estates and then died, more and more land was being monopolised by the dead. This cult of the dead emperors may seem bizarre but it should be recognised as an obfuscating ideology. Its real point was to legitimise the claims of an ever-growing class of minor aristocrats for lifelong support. The five year civil war that took place immediately before the arrival of Pizarro was about efforts to reform these practices. Huascar, the new Inca, wanted to bury the dead emperors and put an end to free-loading.^{cmxc} Not surprisingly, this initiative earned him many enemies and stimulated Atahualpa's challenge. Atahualpa won the fight on behalf of the *panaqa* but met his demise at the Spaniard's behest.

Those who are completely idle are only the most visible part of the burden of dependency that afflicts ascendant societies. Beside these overt dependants there are also covert dependants. That is to say, there is a proliferation of occupations whose contribution to the commonwealth is meagre or non-existent. People can seem to be very busy but their efforts yield little tangible fruit. In the Angkorian mandala, for example, there was a gradual expansion of opulent display, feasting and the bestowal of patronage. This involved much work but was largely a consumptive rather than productive activity. In connection with such court ritual, Angkor acquired numerous officials and a complex bureaucracy.^{cmxci} There were more and

more people who depended on the generosity of the state for their livelihoods. This reached its apogee under Jayavarman VII,^{cmxcii} after whom the mandala began to decline.

There is a kind of built-in bias, which ensures that consumption tends to exceed production. This stems from the fact that people are only really satisfied with their relationship to the wider society if they feel that they are getting more out than they are putting in. However, it is logically impossible for everyone to be a net recipient of funds in the long term. The state therefore has a choice between struggling to meet a demand that outstrips its capacity, or being plagued by dissent and dissatisfaction. Usually it experiences both together. The Habsburg empire illustrates this starkly. The Habsburgs found that each part of their empire tended to absorb more funds than it contributed. No country or province was content to be a net donor. Each perceived itself to be at a disadvantage and in need of special treatment. Each one demanded not only that its tax revenues should be spent for its own benefit but also that it should receive a subsidy from the rest of the empire. The Habsburgs did not submit to these demands, which could scarcely be satisfied anyway, but they found themselves in a double bind all the same. In order to quell dissatisfaction in a particular part of the empire, it was necessary to spend money on military operations in that region. The sums required typically exceeded the tax collected from the region. The shortfall could be made up by tax revenue from the rest of the empire. However, taxing one part to spend on wars elsewhere only caused the first part to revolt as well, thereby creating an intractable problem.^{cmxciii} At any rate, once parasitism has taken hold, it tends to spread. People are never keen to subsidise their peers on a long term basis, and they seek the same privileges. In doing so, they exhibit a trait that has ultimately afflicted and damaged every ascendant society – the terrific capacity of human beings to exploit every situation to the maximum, or indeed to a point beyond what it will actually bear.

Chapter 10 - The phoenix principle

Interruptions in history

History is a continual ferment. Fluctuations of institutional complexity occur continuously and on all scales. Towards the deeper and longer lasting end of the scale is the downward fluctuation that overcame western Europe following the collapse of Rome. This was a time of severe retrenchment on all fronts. Civilisation gave way to barbarism. It took many centuries for Europeans to climb back to the kind of ordered, mercantile society that had existed under the Romans. The collapse probably went furthest in the former Roman colony of Britain, where the urban areas were all but completely abandoned. On the continent, some cities continued to be inhabited but they shrank drastically and defensive walls were put up, reflecting the insecurity of the times. This is the time of the 'Dark Ages'. It stands as an interruption in European history, or as a discontinuity in the evolution of human institutions.

Europe's dark age was neither the first nor the last such period in history. This kind of conspicuous retrenchment has occurred many times over the last five thousand years, and has afflicted numerous other civilisations. Pharaonic Egypt, for instance, experienced at least two unmistakable dark ages, or intermediate periods. During the first intermediate period, which followed the collapse of the old kingdom around 2200 BC, Egypt sank into a pandemic of conflict. There were repeated famines, trade dwindled, and life expectancy was reduced.^{cmxciv} It was in every respect a retrograde step. The nation lost its coherence and integrity. However, the crisis was only temporary and Egypt eventually recovered. Several centuries later, pharaonic rule again crumbled. Egypt entered its second intermediate period around 1700 BC, and the country was again plagued by unrest and problems with food supply.^{cmxcv} Around 1100 BC, there was a lesser dip in Egypt's fortunes, which is sometimes referred to as the third intermediate period.

The Egyptian first intermediate period was the local manifestation of a broader dark age that enveloped the whole of the eastern Mediterranean and middle east. As the Egyptian old kingdom collapsed, the Tigris-Euphrates region was also plunged into disorder. It was fragmented, at war with itself and plundered by outsiders.^{cmxcvi} Building, writing and art all seem to have ceased. The third intermediate period also coincided with problems throughout the ancient middle east. Although the general area eventually recovered from this second widespread dark age, many specific societies, including the Hittites and Mycenaeans, never reconstituted themselves. The Hittites, though, had recovered from an earlier, more localised dark age. After the death of their king Telipinus, around 1500 BC, there was a hiatus

during which the Hittite empire temporarily lost its authority.^{cmxcvii}

The dark age that hit Greece after the Mycenaean collapse was particularly severe. This is sometimes known as the Hellenic middle ages. Palaces and fortresses were destroyed in many parts of Greece and the land dissolved into numerous local groups engaging in petty warfare. Writing and urbanism disappeared. These institutions were only resumed during the Greek archaic period of 800 to 500 BC, which was the time leading up to the emergence of the classical city states.^{cmxcviii} Some people also speak of an Italic middle ages, which began during the late sixth century BC and reached a low point as the fifth century turned to the fourth century. This dark age separated two periods of high achievement in Etruscan civilisation,^{cmxcix} and was also felt by the Phoenicians and Greeks. During the second half of the fourth century, the dark age lifted and there was a marked resurgence in Etruscan manufactures.

China gives evidence of repeated dark ages. The combined Spring-Autumn and Warring States periods, when the Chou dynasty retracted and disappeared, represented an era of marked regression and disunity.^m By 221 BC, however, the dark age was over. The Ch'in dynasts succeeded in unifying China under one regime. Nevertheless, over the next thousand years or so, China's first, second and third partitions were followed by further dark ages. Typically, during these episodes, the functions of the state went into abeyance, people turned to other-worldly religions,^{mi} and China was characterised by continuous fighting.^{mii}

Dark ages occurred in pre-Columbian America, too. The time between the collapse of Huari and Tiahuanaco and the foundation of the Chimu empire was a time of cultural regression in the central and southern highlands of Andean South America.^{miii} In the Valley of Mexico, the fall of Teotihuacan was followed by a period of relative poverty and disorder. In North America, the Hopewell and Mississippian societies can be regarded as successive periods of ascendancy, which were separated by a long dark age.^{miv}

Having said all this, the term 'dark age' has rather fallen out of favour with most historians. It is felt to be an unduly negative way of writing off whole periods of history and the people that lived in them.^{mv} After all, these periods were not without their achievements. However, 'dark age' is actually a good term for eras of this kind. This is because they are characterised above all by their obscurity. They are dark not only because they are times of trouble and conflict. They are also dark in a more literal sense, which is that scholars have very little idea of what happened in them. During these centuries, the historical record goes almost completely silent. There are very few

contemporary inscriptions or documents. Dark ages leave few records. They are missing chapters in the human story. It seems that the people who lived in them had more pressing concerns than to construct monuments and produce written accounts of their times.

Consider, for example, Britain's sub-Roman dark age. Historical information about this period does not even approach in value what is available for the centuries before and after.^{mvi} The period is dark because even the biggest events that happened in it, such as the arrival of the Angles and Saxons, are shrouded in mystery.^{mvi} There is only one significant contemporary document, which is attributed to a monk called Gildas. Even so that is a very obscure source and dates only from near to the end of the period. Most of it is just a lament for the sorry state of affairs in Britain caused by the Saxon invasions. The few references to actual events are difficult to interpret.

Gildas's account is supplemented in only the barest manner by Bede and a few other authors. These records date from several centuries after the time to which they refer. For instance, Bede's history was written 200 years after Gildas's manuscript, in the eighth century. The main value of these later authors is that they draw upon earlier sources which have not survived to the present. To illustrate the depth of modern ignorance, the period of the sub-Roman dark age is supposed to be the time of King Arthur, a very significant figure in British literature. Yet it is not known for sure whether Arthur ever really existed. At least one expert on the period is adamant that he did not.^{mvi} Another is equally certain that he did.^{mvi}

Apart from these meagre documentary sources, the only insights into the sub-Roman dark age come from archaeology and the study of place names. However, data is scarce even there. Whereas there is an abundant archaeological record for Roman Britain and for Britain since AD 600, there is a dearth of finds dating to the two centuries after the Roman withdrawal. For Roman Britain, historians have buildings, coins and documentary records, and their understanding of the period is very satisfactory. However, for the subsequent dark age there is none of that.^{mvi} Place names provide some indication of the distribution of particular tribes and groups and give a few other hints of the era's history. Yet as a source of historical information they are generally scant and ambiguous. The original names of many of the Roman settlements were completely forgotten.

It is this darkness that defines a dark age. For Britain the term 'Dark Ages' is often used to refer to a period ranging from the collapse of Roman rule up to the ninth century or later. However, in this book, the term 'dark age' is used more narrowly. Britain's dark age proper is considered to have ended in AD 597 with the arrival of St

Augustine, first archbishop of Canterbury, when events again began to take on a reliable historical nature. Of course, in reality, the term is relative. Darkness does not lift abruptly and some dark ages have been darker than others. Britain's was one of the darkest. Nevertheless, the various dark ages mentioned above justly earn that title because of the obscurity of the events that took place within them.

For example, with respect to the dark age that afflicted most of the ancient middle east around 2200 to 2100 BC, archaeological evidence is meagre or non-existent.^{mvi} In ancient Iraq, every activity that might have left an imprint in the archaeological record seems to have ceased. Similarly, in Egypt, despite its wealth of material, there are few contemporary records from the first intermediate period. The events of the second intermediate period are also highly uncertain. There was supposedly an invasion by the people referred to as the Hyksos. However, the Hyksos are an enigma. This appears to be a name that the Egyptians gave them and is not necessarily the name they gave themselves. Historians do not really have any idea as to who the Hyksos were, where they came from or where they went. Similarly, the Hittite dark age that followed the death of King Telipinus stands out as a time when the historical records go silent.^{mvi}

In the Greek peninsula, the archaeological record is very poor for the period of the post-Mycenaean dark age.^{mvi} The archaeological trail also grows faint during the general depression that struck Etruria in the fifth century BC. This stems from a combination of factors that possibly include trade disruption, a fall in the standard of living, reduction in building work, lack of innovation in the arts, and demographic contraction.^{mvi} Events during the Mexican dark age, surrounding and immediately after the fall of Teotihuacan, have been described as rather nebulous.^{mvi} Similarly, the third partition of China, in the tenth century, has been said to be a time of confusion and one that is obscured by shifting mists.^{mvi}

A dark age is not only obscure in itself. It also serves as a barrier to the transmission of information about the time before the dark age. It is a break in the handing down of knowledge from one generation to the next. People who live in such an era know less than their ancestors did both about the past and about the world around them, so this is another reason for calling it dark. For example, Gildas, who lived (even this is uncertain) around AD 500 to 550, demonstrates a remarkable lack of knowledge of the period AD 350 to 450. It appears that very little came down to educated people of his generation of even late Roman times.^{mvi} Indeed, when classical civilisation collapsed in the west, much of its learning was forgotten within Europe.

Scholars today only know as much as they do because a number of key texts were preserved within Islamic civilisation. The ancient literature of European civilisation was not so much inherited as reconstructed during the renaissance.

Perceiving catastrophe

An important question is whether people whose societies are in decline are actually aware of their predicament. There are certainly some examples of prescience regarding the approaching ruin of past societies. In the fourth century BC, Demosthenes saw disaster looming for the world of classical Greece.^{mxviii} Scipio showed an understanding of the transience of temporal power after the sack of Carthage in 146 BC. Standing among the ruins of Phoenician civilisation, he quoted Homer to his friend Polybius and indicated his presentiment that Rome would one day suffer the same fate.^{mxix} Several hundred years later, when Roman civilisation was indeed decaying, St Jerome observed that 'alas the world is crashing about our ears'. The Christians as a whole taught that society was teetering on the edge of an abyss.^{mxix} Their understanding of the catastrophe that was descending on Rome seems to have been a factor in their ability to make the most of the opportunities that emerged in its wake.

People in general are of course sensitive to the deteriorating situation of a declining society in that they perceive crime, disorder and financial difficulties as undesirable. During the first partition of China, there was an intense discussion of social problems.^{mxix} Similarly, late Romans bemoaned the ills of their time. Nonetheless, people find it difficult to believe that this is anything other than a passing phase. They expect the problems to be resolved rather than that their society should plunge into a dark age. Most Romans probably did not realise that their civilisation was transforming and coming to an end.^{mxix} To be sure, the empire's problems were not difficult to discern. In some provinces, there were quite disastrous famines and even respectable families were being forced to sell their children into slavery. Yet for all this, there was no sense of real peril^{mxix} and to a citizen of the fifth century AD the gradual growth of crisis was not evident.^{mxix} In a similar way, the British did not appreciate that there was any genuine danger as their empire neared its end in the early twentieth century. Those who supported the existence of the empire sought to reassure themselves that its apparent faltering was only temporary and that somehow they would muddle through.^{mxix}

It seems that the threat, the small dark cloud on the horizon which indicates the advent of the deadly storm, is not obvious to contemporaries. They see only the much larger expanse of clear blue sky. In the fourth century BC, the people of Carthage would have found the idea of Rome as a

menace somewhat strange. They could not have conceived of how rapidly Rome might rise nor how far that rise might take it. On the contrary, they must have looked around themselves and been able to feel quite pleased with what they had achieved.^{mxix} They were prosperous and powerful and there was no real reason to think that anything significant could be wrong. The Carthaginians were not especially complacent. When people are riding high, they generally assume that this happy state of affairs will continue.

During the dark age itself, a society's impoverished and feeble state is easily differentiated from the wealth and power that are signified by the magnificent monuments people can see in ruins all around them. It is obvious that standards of living are depressed. People can certainly contrast their makeshift houses and home-made implements with the temples and road networks of former times. However, this still does not mean that people regard themselves as being in a dark age. After all, the failure of cultural transmission means that people only have a hazy idea of what things really used to be like. No doubt, they accept their situation for what it is. The identification of any period as a dark age is therefore mainly a judgement for later historians.

Timings

The problems of a declining society have usually been building for centuries. However, these threats to its continued existence lie mostly below the surface, only to be dissected in hindsight and with minute analysis. Things can seem to be quite satisfactory in many ways, and indeed can seem quite normal. The approaching social catastrophe is therefore unexpected. When problems finally come to the surface, they often do so as part of an abrupt breakdown. The society seems to go over some kind of precipice, albeit that the contradictions producing the breakdown were in existence long beforehand.

The pyramid complex of King Neferkare Pepi II, the last major monument of the Egyptian old kingdom, is hardly distinguishable from those of his predecessors. It gives no hint of the dark age soon to engulf Egyptian civilisation.^{mxix} Similarly, the Assyrian empire reached its greatest height under Assurbanipal, whose name means great king. Yet only 14 years after his reign the empire collapsed with immense suddenness.^{mxix} The disaster that terminated the Minoan civilisation was also very sudden in its effects.^{mxix} When the Hittite civilisation collapsed around 1200 BC, all reference to this people and their empire ceases abruptly.^{mxix} Etruria entered the Italic middle ages after doing splendidly only a short time before.^{mxix} Centuries later, under the pressure of Roman expansion, the Etruscan people vanished almost overnight, suddenly ending some 700 years as a significant force in the Italian peninsula.^{mxix}

The same story is apparent in the pre-Columbian civilisations of America. Teotihuacan, for example, collapsed abruptly,^{mxxxiii} while in the Mayan cities activity ceased suddenly, leaving behind buildings that were still only half-finished.^{mxxxiv} Easter Island society seemed to deteriorate rapidly between visits by Europeans. Captain Cook's expedition, only four years after the Spanish, found the islanders in a much more distressed condition. The previously friendly natives were now armed with clubs. Many of the statues had been overturned in what appeared to be a recent spate of destruction.^{mxxxv} Furthermore, a number of statues were abandoned along the road from the quarry, which implies that the cessation of statue-raising activity was quite sudden.^{mxxxvi} The Inca empire, meanwhile, collapsed with extreme abruptness after Pizarro's execution of Atahualpa.^{mxxxvii}

A dark age does not last forever. It is an interruption, followed by recovery. If one defines the dark age proper as a period whose history is obscure, then the duration of the dark age is often relatively brief. The Hittite dark age after the death of Telipinus lasted 50 years,^{mxxxviii} as did the Sumerian dark age of the twenty second century BC.^{mxxxix} After its defeat in the second Punic war, Carthage became obscure for a period of about 50 years.^{mxl} The first and third partitions of China lasted 44 and 53 years respectively.^{mxli}

On the other hand, the Egyptian second intermediate period lasted 170 years. In the Valley of Mexico, the chaos that followed the age of cultural unity lasted two centuries.^{mxlii} This was also the duration of the sub-Roman dark age in Britain.^{mxliii} The second partition of China lasted 281 years.^{mxliv} The Greek post-Mycenaean dark age lasted a full 400 years.^{mxlv} Finally, China's Spring-Autumn and Warring States periods lasted 370 and 180 years respectively, for a total duration of 550 years.^{mxlvi} (Though, to be fair, this long interruption in Chinese civilisation was not an especially dark one.)

At the other extreme, it is now widely believed that the dark age of the Egyptian first intermediate period lasted only 20 to 25 years.^{mxlvii} Even shorter was the somewhat confused period that obscured the chain of events when Dynasty XI failed and Dynasty XII was founded. This dark age lasted only about 5 to 7 years.^{mxlviii}

Typically, therefore, dark ages appear to last somewhere between 25 and 200 years, with a duration of 50 years being perhaps the most common. It may be helpful to reckon this in human generations. That is to say, dark ages commonly last about two generations, although the length can vary between one and eight generations.

A squatter's world

The most ascendant societies are known for their hugely impressive monumental architecture,

including the pyramids, the Great Wall, Easter Island's statues, and the Sumerian ziggurats, i.e. temples on massive brick-built step mounds.^{mxlix} Ostentatious public architecture like this reveals the considerable authority of the rulers who are able to order its construction. It also illustrates the society's wealth, in that there is obviously excess labour to expend on such activities.^{ml} It is therefore one of the clearest indicators of a society's success. The very greatest monuments are produced only at the peak of ascendancy.

By contrast, as a civilisation declines its construction work becomes meaner and less grandiose. In the later levels of the Harappan cities, buildings became shoddier and smaller. Living quarters were more cramped and the overall quality of the workmanship was poorer.^{ml} In urban centres, the standardisation of street frontages declined. Brickwork was less careful and bricks from older buildings were reused in new, expedient ones.^{ml}

The same sort of shoddiness is found in the buildings that date from when the lowland Maya were in decline.^{ml} At Chichen Itza, buildings of inferior design and execution were put together with stones scavenged from older structures.^{ml} The later architecture of Mayapan has been described as unbelievably crude. Even important civic buildings had wooden roofs and thatching. They might be thought developmental if it were not known that they actually represent decadence.^{ml} In the Valley of Mexico, the building at Teotihuacan became less massive towards the end, suggesting a loss of ambition and expertise. There was a shift towards second-rate methods of construction, with less hewn stone and extensive use of rubble filling.^{ml} In Africa, on the middle Nile, the gradual decline of the Nubian Christian civilisation was paralleled by a steady decline in the size and pretentiousness of the Nubian churches.^{ml}

On Easter Island, the quality of construction declined as society fell apart. The courtyards and platforms where statues were erected became crude and structurally unsound.^{ml} Many of the later ones were rebuilt from the broken pieces of older statues.^{ml} In Etruria, during the Italic middle ages, tombs became less numerous, less imposing and less richly decorated. By contrast, when Etruscan fortunes revived in the fourth century, funerary architecture partially recovered its former lavishness.^{ml} As Roman civilisation declined, its infrastructure was allowed to decay. Streets and drains were maintained to a very poor standard. The latest metallings of roads were of markedly inferior quality.^{ml} All across the empire, the formally magnificent highways were in disrepair as public services fell apart.^{ml}

With the final stages of decline, no substantial buildings are put up at all. In pharaonic Egypt, monumental construction declined to virtually

nothing during the first intermediate period. In the simultaneous Sumerian dark age, building work ceased, along with writing and art. In Rome, during the crisis of the sixth century BC, there is almost no record of any sacred buildings being constructed.^{mlxiii} The late Minoan period saw building work dwindle rapidly to nothing,^{mlxiv} while in Greece monumental buildings disappeared for the 400 years of the post-Mycenaean dark age.^{mlxv} At Angkor, during the final 150 years of decline after Jayavarman VII's death, there was no major rebuilding. The ruins today reflect the plan of the city as he left it.^{mlxvi} The practice of erecting Sanskrit stelae was also discontinued some time before the final abandonment of Angkor.^{mlxvii}

In America, the same pattern is repeated. The Maya, for instance, constructed no new monuments after AD 1000, when their civilisation was in terminal decline.^{mlxviii} In North America, the impressive earthworks of the Hopewell culture were mostly built before AD 300. Construction ceased shortly afterwards when the Hopewell way of life collapsed.^{mlxix} In the case of Chaco Canyon, people began scavenging the towns for building materials towards the end of its span. After AD 1130 construction ceased completely.^{mlxxx} The collapse of Casas Grandes meant that no more ceremonial architecture was built in the south Mogollon region. Finally, on Easter Island, the late period immediately prior to the European arrival saw the end of stone carving from the island's quarries^{mlxxi} and a cessation of new platform construction.^{mlxxii}

The heirs of decadent civilisations apparently lack the resources or the motivation to build for themselves, at least on any significant scale. Instead, they camp out or occupy in a slovenly manner the buildings put up by their forebears. For example, after the late crises that shook the Minoan civilisation, people reoccupied the cities but without making any new constructions and in a way that suggests the same culture at a lower standard.^{mlxxiii} Sir Arthur Evans, the great excavator of the Minoan cities, described Crete after 1400 BC as a squatters' world.^{mlxxiv} It has similarly been said of the Harappan civilisation that during the later stages it looks as though squatters had moved in, and as if once dignified town mansions had deteriorated to become slum dwellings.^{mlxxv} Older buildings were subdivided, while pottery kilns came for the first time to be built within the city walls. At some centres, the Harappan occupation was followed by people who lived among the ruins in flimsy huts, seemingly after the complete breakdown of civil authority.^{mlxxvi}

In exactly the same way, the small groups that latterly occupied the ceremonial precincts of the Mayan cities, even as these lay in ruins, have been described as squatters.^{mlxxvii} They lived in the

decaying buildings, boarding up rooms as their ceilings collapsed and camping in the remainder.^{mlxxviii} At the Mayan city of Uaxactun, people continued to use the city for religious purposes, as some late burials demonstrate, but they allowed the buildings to fall into disrepair.^{mlxxix} As the buildings began to collapse, half-hearted attempts were made to keep some rooms in service by blocking off doors in a rather clumsy way.^{mlxxx} The grand and spacious rooms of the old buildings were partitioned up to make several smaller rooms. It has been suggested that this may have been through a religiously motivated desire for secrecy.^{mlxxxi} However, even if this is accepted as a partial explanation, such casual treatment of graceful old buildings still speaks of a squatter's mentality. At Chichen Itza, as buildings fell into semi-ruin they were first shored up with emergency walls before being finally abandoned. In the corner of one colonnade a room was built that included stones torn from an altar.^{mlxxxii}

After the collapse of Teotihuacan in AD 700, the remnant population again sealed off doorways and partitioned larger rooms into smaller ones.^{mlxxxiii} As the Casas Grandes civilisation went into decline, people simply resorted to living in the upper rooms of buildings when the lower storeys had become unusable.^{mlxxxiv} In the case of Easter Island, the sacred places were turned into makeshift graveyards. The islanders burrowed under the fallen statues and made no attempt to put things back in order.^{mlxxxv}

In Roman Britain, the last quarter of the fourth century saw a cessation of building activity. In the countryside, no new villas were built, while the standard of upkeep of the existing villas deteriorated. Rooms were allowed to fall into disuse. Historians have again described this as 'squatter occupation'. Some people began to live in what had formerly been the stables of great villas, while others constructed makeshift hearths in the middle of rooms, damaging their mosaic floors. Some evidence suggests that this was done by the original owners and not simply by invaders or looters. It implies that they were no longer able to maintain and repair the villas' sophisticated under-floor heating systems. At Canterbury, some large buildings were divided up into smaller rooms by means of wooden partitions. At Verulamium, town houses were being abandoned as the legions prepared to leave.^{mlxxxvi}

Building activity clearly emerges as a sensitive barometer of a society's condition. As a society heads towards the abyss, its constructions become cheap, functional and impermanent, and few new monuments are produced. The dark age itself is a period of severe material impoverishment. People cease adding to the infrastructure that was built up during the times of ascendancy. Instead, they live within it as squatters and scavengers.

Violent ends

A dark age is a time of turmoil and of the breakdown of law and order. In Egypt's first intermediate period, peasants carried weapons while working in the fields. Texts from this era describe every kind of social disruption.^{mlxxxvii} The abrupt decline that marks entry into a dark age is frequently accompanied by an episode of slaughter and destruction. There is evidence of a severe massacre in the last occupied level of Harappa.^{mlxxxviii} Unburied skeletons were found sprawled in the street, suggesting the aftermath of an invasion.^{mlxxxix} At the Hittite capital of Hattusa, which was abandoned around 1200 BC, archaeologists found traces of a final, violent conflagration wherever they dug.^{mx} Similarly, the end of the Mycenaean civilisation was marked by a violent spate of destruction and the abandonment of the palaces.^{mxci} At the end of the third Punic war, Phoenician civilisation was terminated after days of gruesome street fighting when the victorious Romans razed Carthage to the ground.^{mxcii} In AD 410, during the twilight of the Roman empire, the Visigoths looted Rome for three days.^{mxciiii} Meanwhile, in the provinces, the withdrawal of Roman rule was the precursor to barbarians running rampage among the settled and civilised subjects of the empire. After AD 400, many provincial villas were burned down by these invaders.^{mxciiv}

The ruins of these various civilisations are now popular tourist attractions around the world. Many people perhaps suppose that all such ancient palaces and temples are in a ruined state because they have deteriorated slowly thanks to the ravages of time and the elements. In general, however, this is not the case. These buildings were mostly ruined by deliberate acts of destruction during the violent episodes that accompanied collapse and the entry into a dark age.

For example, the Minoan palaces were devastated by a widespread conflagration,^{mxcv} possibly at the hands of Mycenaean invaders.^{mx cvi} The Mycenaean cities were later destroyed when this civilisation collapsed, with Mycenae being again destroyed after it had been resettled in classical times.^{mx cvii} This is why these places are now in ruins. The rampaging by the Visigoths meant that many of Rome's great buildings had already sustained extensive damage before the empire actually fell. In America, the most impressive site of the Olmecs, at La Venta, was demolished about 400 BC, after being subject to violent desecrations.^{mx cviii} On Easter Island, during the troubles that beset the island in the late period, there was deliberate destruction of ritual platforms and toppling of statues.^{mx cix} Islanders placed blocks of stone on the ground so that when the statues fell they would be decapitated.^{mx} The first Europeans saw statues in their original condition^{mxci} but an

1812 Russian expedition saw only ones that had been overturned.^{mx cii}

As for those American civilisations that were still extant when the conquistadors arrived, the sorry state of their relics is often due to deliberate vandalism by Europeans. For a start, the Aztec capital Tenochtitlan was utterly obliterated in the process of being taken by Hernan Cortés.^{mx ciii} Buildings belonging to the Aztecs, Incas and Maya were all torn down in order to build churches.^{mx civ} Many pre-Columbian writings were also destroyed as baleful influences. Indeed, the demolishing of libraries and burning of texts is particularly favoured by those who rampage through collapsing civilisations, a factor that contributes to the darkness of subsequent dark ages. Some early Christian thinkers regarded the classics as a spiritual danger and in AD 391 a Christian mob destroyed the library at Alexandria.^{mx cv} The Mongols also destroyed the libraries of people they defeated.^{mx cvi} Ireland's old churches lie in ruins thanks primarily to the efforts of Oliver Cromwell's armies.

The cities of the Maya are something of an exception to the vandalistic rule. They were not purposefully torn down but were simply abandoned to the jungle and forgotten.^{mx cvii} Consequently they seem to have survived relatively intact. All the same, some murals have been destroyed more recently by the locals, who fear evil spirits.^{mx cviii} In general, the ruins that are left by collapsed societies continue to suffer more from human depredations and scavenging than from the forces of nature.

Creative destruction

The notion of a dark age has many negative connotations. Talk of decay, deterioration and decline reinforces this impression, which is no doubt justified by the association of dark ages with poverty and weakness. On the other hand, it is an ill wind that blows nobody any good. For all their troubles, dark ages lead to a transformation of society. Out of them, comes the embryonic form of a successor civilisation. Dark ages can therefore be regarded as episodes of creative destruction. Societies emerge from them phoenix-like, renewed and reinvigorated.

The negative experiences of dark ages force people to confront the inadequacies of former systems of belief. Their search for new rationalisations demands creativity. The demise of the Yir Yoront aborigines after contact with Europeans was marked by such a creative outburst. Anthropologists who were studying the Yir Yoront found that their supplies of toothpaste were disappearing at an alarming rate. Eventually they discovered that the toothpaste was being spirited off to be used in the arcane rites of a new toothpaste cult, the primary object of which was to direct black magic against the European invaders and drive them away.^{mx cix} In general, when old

practices seem to have failed, new solutions must be sought and cultural life becomes quite fluid.

To begin with, therefore, dark ages seem to be times of particularly rapid change. By the end of the sixth century AD, barely a hundred years after the legions had departed, the whole fabric of Roman imperialism in Britain had been utterly destroyed.^{mex} Such rulers as exist during dark ages tend to be overturned repeatedly and at frequent intervals. During the Egyptian first intermediate period, there were numerous short-lived dynasties. According to one modern authority, there were more than 31 and possibly as many as 40 pharaohs in a period of about 60 years.^{mexi} The late Egyptian priest Manetho, who compiled the first definitive list of dynasties and pharaohs, said that Dynasty VII comprised 70 kings who ruled 70 days.^{mexii} During China's third partition, some ten dynasties followed each other in rapid succession.^{mexiii}

At the same time, while the old institutions are being more or less broken down and destroyed, important institutional innovations are simultaneously being made. During the post-Mycenaean dark age, iron-working technology emerged in Greece and classical Greek society was born.^{mexiv} The period was illiterate and backward in many ways, but it also saw the development of fine pottery with geometric designs and it was during this era that the Homeric poems were composed.^{mexv} Similarly, the fourth century BC was an era of crisis in Italy but it was from this crisis that Rome emerged, along with the institutions that were to propel it towards its magnificent destiny.^{mexvi}

In China, the dark age between the fall of the western Chou and re-unification under the Ch'in was a period of considerable intellectual flowering. Despite endless strife, this age produced some of China's major philosophical, literary and scientific achievements.^{mexvii} Confucius lived at this time and founded an ethical system that came to be at the heart of later Chinese civilisation.^{mexviii} This was also the time of the other great philosopher of ancient China, Lao Tzu, whose teaching, the Tao, has remained influential into the modern era.^{mexix} The Warring States period, during which China was fragmented and shaken by widespread conflict, was also when the so-called hundred schools of philosophers were at their height. This age is now looked on as China's classical period.^{mexx} Later, the first partition saw the emergence of fresh themes and techniques in the arts, while, during the dark age of the third partition, gunpowder and printing made great strides forward.^{mexxi}

In Britain, the two centuries after the Roman withdrawal saw perhaps the most profound and far-reaching changes the island has ever experienced. New peoples arrived to settle it, the fundamental structure of the language was altered, many of Britain's basic institutions were laid down,

and the exploitation of natural resources began to move on to a higher plane.^{mexxii} Overall, Europe's dark age resulted in great innovations in agriculture, including the three-field system and ploughing with horses instead of oxen, while the waterwheels that the Romans had neglected spread on a dramatic scale.

In North America, corn agriculture spread most strongly between AD 500 and 800, i.e. during the dark age that separated the collapse of Hopewell from the rise of the Mississippian culture.^{mexxiii} Similarly, in Japan, the fourteenth and fifteenth centuries were unstable and chaotic, yet the country at large gave evidence of remarkable cultural and commercial growth.^{mexxiv} The troubled times of the fourteenth century in Europe saw businesses innovating strongly in response to changing opportunities. A historian of the period has referred to the rich harvest of an age of adversity.^{mexxv} Similarly, the crisis-ridden seventeenth century was also the time of Shakespeare, Galileo and Newton, figures whose influence on contemporary civilisation could scarcely be more far-reaching.

A dark age can be seen as the ignominious closing of an old era. However, it can also be seen as the hopeful beginning of a new one. The transition from old to new is not an easy one and involves tribulation and conflagration. France did not pass from absolute monarchy to the republic without the horrors of the revolution and the abolition by decree of almost every structure of the ancien régime. One might call this the phoenix principle. The flames of confusion are necessary for resolving the many problems that accumulate in once-successful, declining societies, and for allowing them to become powerful again. Societies that avoid falling into chaos are only apt to become burdened and disadvantaged. Constantinople did not collapse like Rome, but the result was that the west not the east emerged a thousand years later to surpass every other region and become the world's leading centre of human advancement. In a similar way, defeat in war helped to give Japan and Germany a fresh start in 1945. Some of the victors, by contrast, remained lumbered with centuries-old institutions and ideological baggage that made it harder to reform themselves and to grasp the new opportunities that were taking shape.^{mexxvi}

During a dark age, then, traditional institutions are overthrown and the resulting social vacuum invites new ways of thinking and behaving. It is as though the society's institutions are thrown back into the melting pot. A curtain comes down. When it is lifted a new order seems to be in place. This may be a depressing experience for those who were doing well out of the old society. Yet for the dispossessed and the disenfranchised, who in any age are the majority after all, it creates only opportunities. When the world is turned upside

down, kings and queens are likely to lose but slaves

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- ⁱ Piggott 1966.
ⁱⁱ Préaux 1971, p. 334.
ⁱⁱⁱ Toynbee 1972, p. 71.
^{iv} Cottrell 1966, p. 82.
^v Cottrell 1966, p. 114.
^{vi} Herodotus 1954, pp. 142, p. 134.
^{vii} Cottrell 1966, p. 116.
^{viii} McEvedy 1967, p. 46 ff.
^{ix} Préaux 1971, p. 341.
^x Cottrell 1966, p. 18.
^{xi} Rice 1991, p. 3.
^{xii} Trigger et al. 1983, p. 300.
^{xiii} Cottrell 1966, p. 51; Tainter 1988, p. 8.
^{xiv} The origins of writing are not entirely clear. The idea of writing may have been introduced to Egypt from Mesopotamia, p. although the Egyptians rapidly developed their own distinctive version. Some authors (e.g. Goody 1978) have suggested that writing came first and enabled the development of state organisation. A more reasonable supposition however is that the two developed hand in hand.
^{xv} Trigger 1983, p. 326.
^{xvi} Cottrell 1966, p. 57.
^{xvii} Trigger 1983, p. 328.
^{xviii} *Professional Engineering*, p. 8.12.99.
^{xix} Cottrell 1966, p. 31.
^{xx} Ceram 1959, p. 171.
^{xxi} Ceram 1959, p. 171.
^{xxii} Cottrell 1966, p. 102.
^{xxiii} Mumford 1966, p. 97.
^{xxiv} Mumford 1966, p. 99.
^{xxv} Mumford 1966, p. 98.
^{xxvi} Cottrell 1966, p. 74.
^{xxvii} Piggott 1965, p. 58.
^{xxviii} Hodges 1970, p. 188.
^{xxix} Hodges 1970, p. 209.
^{xxx} McEvedy 1967, p. 22.
^{xxxi} Whittle 1985, p. 186.
^{xxxii} McEvedy 1967, p. 28.
^{xxxiii} McEvedy 1967, p. 30.
^{xxxiv} Hodges 1970, p. 80; McEvedy 1967, pp. 40-2.
^{xxxv} Whittle 1985, p. 251.
^{xxxvi} Whittle 1985, p. 236.
^{xxxvii} Whittle 1985, p. 251.
^{xxxviii} Whittle 1985, p. 234.
^{xxxix} Piggott 1965, pp. 139-40.
^{xl} Whittle 1985, p. 261.
^{xli} Whittle 1985, p. 257.
^{xlii} Whittle 1985, p. 306.
^{xliiii} Hodges 1970, p. 57; McEvedy 1967 has this trade starting around 1300 BC.
^{xliv} Piggott 1965, p. 138.
^{xlv} Piggott 1965, pp. 140-1.
^{xlvi} Coates 1977, p. 61.
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